

**IMMINENCE AND IMMANENCE:
Embodied Meaning In Architectural Experience**

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abstract:

This thesis is an investigation of the natural or bodily-based meaning of architecture, understood in terms of the inherent qualities and relationships that arise out of movement within the built environment, and based in a contemporary understanding of the relationship between man and world. This work attempts a fundamental grounding of discussions of architectural meaning, through the rigorous application of our ever expansive knowledge base onto the realities of building and basic human understanding. Taking from environmental and perceptual psychology, and the cognitive sciences, the intent is to evolve a dialectic between science and contemporary theory that can advance our knowledge for architecture.

This investigation of embodied experience revolves around two primary focal points. First, the increasing emphasis on vision and abstract objectivity has limited the range of the meaningful, and has led to a focus on abstract, intellectual meaning; this work attempts to demonstrate the potential that an interactive and complementary juxtaposition of kinesthetic signification could have. Second, architecture's greatest potency arises when it is considered in terms of the experience of both space and time -- **specifically movement and the relationships between spaces that result from this movement.** The body may be seen as a "paradigmatic ruler," a measuring tool for spatial experience, which in fact measures the spatially implicit meaning in bodily experience. Thus, this thesis is about trying to resolve the difficult juxtaposition of the transcendent qualities of embodied meaning with issues of time and movement, in order to derive an architecture fundamentally grounded in the body.

The thesis surveys a cross-section of research and theory loosely categorized into three realms: embodied understanding, embodied meaning in architecture, and aesthetic issues of time and movement. The intent is to give direction to possible theories of architecture grounded in embodiment. This consideration of embodied meaning does not attempt to suggest an alternative to conscious, culturally-based meaning, nor to perpetuate the mind-body split; rather the intent is to offer another frame of emphasis within our consciousness, and indicate the possibilities of the interaction and integral relationship between the intellectual and embodied realms, in designing for the modern world.

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"Buildings can speak to us, even if they cannot explain."

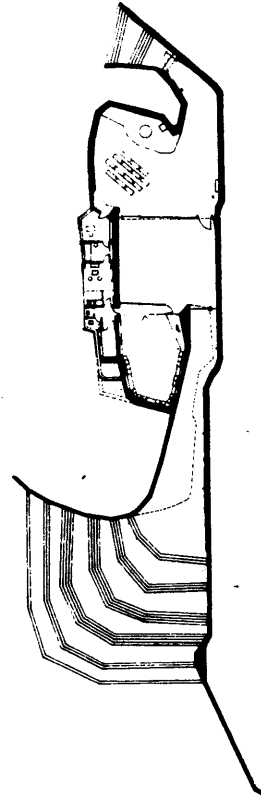
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INTRODUCTION

The entry sequence into the Protestant Memorial Chapel at the Dachau concentration camp is a series of kinesthetic experiences that engage, immerse and manipulate the human body for effect. The access to the chapel begins across an expanse of dirt and gravel with little or no attempt to beautify the exterior—open in composition. The chapel emerges from this plane without pretense, to meet the visitor. The entry is down a fairly wide expanse of starkly detailed, concrete stairs that narrow in their descent. At six or seven feet below grade the stairs become a still narrowing path, an experience of constriction, which is eventually subsumed by a cantilevered plane of solid concrete. The extraordinary experience is that of the overhead plane itself, which cantilevers to within a few feet of the far wall of the dark and subterranean path. The visitor's own perception of mass and cantilever pulls this plane downward, imposing upon him, disconcerting. The path continues down, jaggedly curving to the left as it narrows, thus interrupting any possible visual connection to the anticipated goal, before finally releasing into an open, orthogonal space that reaches vertically and captures the sky above.

The interaction of body and space through movement engages our perceptual consciousness. Architecture's substance is defined by its relationship to human beings -- its meaning is a reflection of our interpretation. And part of that interpretation arises from our bodily experience.

This thesis attempts a fundamental grounding of the consideration of meaning in architecture. It is my contention that the production of architecture can best be served through the application



of our contemporary understanding of ourselves and the processes we go through in the perception and understanding of our environment. A considerable portion of our architectural discourse has become entangled in philosophical rhetoric, losing sight of the relationship between architecture and basic human understanding. I would like to re-introduce and re-evaluate (in light of our greater self-understanding) a banal and familiar concept into the equation of architecture, which has, through constant intellectual analysis, been repressed and subverted: embodied meaning. More specifically, the intent is to study the embodied and kinesthetic experience of the environment, what we know about how we perceive and come to understand our environment, and the potential meaning this experience may have for us. We experience the world through a pre-conceptual dimension of consciousness, which, disguised in an aura of obviousness and implicitness, conceals from our analysis the way we engage the world .

Architecture's gains significance when it is considered in terms of the experience of space and time: specifically the experience of movement and the relationship between spaces that result from this movement. The body may be seen as a "paradigmatic ruler,"¹ a measuring tool for spatial experience, which in fact measures spatially implicit meaning in bodily experience. The thesis thus attempts to derive fundamental principles of the human body's interaction with physical form in the four-dimensionality of space-time. The focus is first and foremost on perception and understanding, and theories of reception, rather than production or expression. But the goal of this inquiry is to provide a medium for the understanding of reception, in order to ultimately produce a better architecture.

The increasing emphasis on vision and representation in design has brought about a simplification of the architectural experience; architecture has often become the equivalent of a two-dimensional representation of itself. Architecture that is a function

¹Harries, Karsten, "The Voices of Space," *Center Vol.4*. (New York: Rizzoli, 1988), p. 40.

of vision contributes to its own consumption. Embodiment has the capacity to transcend architectural commodification because the emphasis is on physical interaction, which no photograph can accommodate. This over emphasis on surface representation has limited the range of the meaningful. Partly a manifestation of modernity's reduction to vision as a substitute for our total understanding of the world, the emphasis on vision in architecture has led to a focus on conceptual and therefore primarily cultural symbols: symbols to be registered, processed and analyzed through an active reading of the architectural participant. A theory of embodied meaning does not assume or necessitate such an active reading by the subject. In contrast, this thesis explores the potential that an interactive and complementary juxtaposition of kinesthetic signification could have. The focus here is thus on space and embodied experience, rather than form and vision. Embodied experience incorporates all of the senses, including vision, and places them in relation to one another in order to provide a total perception.

The focus on language in contemporary architecture is partly a product of a philosophical position that has become preoccupied with the elimination of vagueness and ambiguity in the terms of discourse, resting "on the assumption that much depends upon the meaning of our terms, and that we operate with this meaning"² However, Karl Popper notes that progress in the sciences is less concerned with the precision of its terms than it is with a range of reasonable accessibility. He suggests that there ought to be limitations to, not the elimination of, vagueness and ambiguity.³ The fundamentally abstract language of architecture has often allowed itself to become caught in this web of definition. The necessity of architecture to be explanatory and precise is doubly confirmed not only by explicit cultural references in some cases (as in Post-Modernism's historicism), but also by the necessity to confirm the significance of the work through accompanying texts to the architectural community -- which obviously have little impact on

²Popper, Sir Karl, *Popper: Selections* (Princeton, NJ: Princeton University Press, 1985), p. 99.

³*Ibid.*, p. 97-98.

those who experience the architecture everyday. Thus vision, which gives us access to extensively explicit information, is not seen as primary, but is given absolute authority in order to define an architecture that explains itself.

I want to emphasize that this is not an attempt to suggest an alternative to culturally-based meaning, or to deny the extent of its value. But overly-intellectual constructs have tended to devalue, or eliminate completely the role of bodily interaction with our physical surroundings. I believe this has been, in part, a result of the perceived obviousness and irrationality of bodily experience, and the objective construct of an abstract mind separate from a concrete body. This work will attempt to transcend the mind-body dichotomy and indicate how these two layers of meaning in the relatively abstract realm of architecture may find greater significance when considered together. A theory of architecture which mediates the juxtaposition of bodily pre-consciousness and intellectual consciousness, and acknowledges the potential of the complex interactions between these realms of meaning, more closely approximates actual experience. The intent is to explore the interactive character of the mind and body, and to consider how the mind and body work as a single entity in the perception and comprehension of the environment.

When we speak of the perceptual body, we begin to address essential commonalities of human architectural experience. The search for essence is not a search for an idea defined by discourse. It is an exploration of the physical world relative to us and relevant for us; in terms of our own understanding. To discover these commonalities, we need to look at what makes experience possible. These commonalities arise out of the essential characteristics of the human interaction with the environment, based on those qualities which define us: body shape, form structure, our way of perceiving and traversing the world. Louis Kahn was one of the first architects of modernity who professed a search for the essentials. But the

intangibility of Kahn's personal and spiritual search made it difficult to advance his work. This thesis is an attempt to get at the tangible end of essence; the experience of the body--common to all of us--perhaps has the capacity to bring essence and existence together. But we must also remember that reality is not constituted through such commonalities: we must remain indeterminists to be sure. We must always keep the context under consideration, and realize that the situation is idealized.

I am not claiming to have discovered what our essence ultimately is, rather my use of the term stems from Popper: "Although I do not think we can ever describe, by our universal laws, an ultimate essence of the world, I do not doubt that we may seek to probe deeper and deeper into the structure of our world, or as we might say, into properties of the world that are more and more essential, or of greater and greater depth."⁴ It is what might be described as a modified essentialism that accepts that we do not have full knowledge of the essence of our own being. But with further excavation we can get closer to more basic, essential principles. "The depth of a scientific theory seems to be most closely related to its simplicity and so to the wealth of its content."⁵ *Immanence* may be revealed through the excavation of the layers of our consciousness. We need to discover what makes experience possible, in order to be more aware of what experience is. This thesis thus searches for patterned regularities in the way we understand our environment, as a tool to guide architecture away from arbitrary preferences.

⁴*Popper, p. 167.*

⁵*Ibid., p. 167.*

A considerable amount of research has been done recently, in a wide range of fields, on the processes human beings go through in the perception and understanding of our environment. These advances have yet to be dealt with in terms of architecture. It is my contention that real progress in architecture at this moment can be

made through the rigorous application of our ever-expansive knowledge base. This study attempts to bring these scientific advances of self-knowledge together and begins to reconsider architectural directions in the light of such knowledge. In the context of design, there does not appear to be as yet a viable theory which fundamentally relates people and buildings to one another. Taking from environmental and perceptual psychology and the cognitive sciences, the intent is to evolve a dialectic between science and contemporary theory that can advance our knowledge of architecture. Rather than looking at the world separate from ourselves, we need to explore the ways we engage our world. Architecture still tends to rely on intuition. In places where the greater understanding of the human mind could become a teachable platform for students to build from. It may be possible to use the sciences to minimize the unknown, and provide working tools for the imagination. This is in no way meant to be exclusionary of art and intuition, rather, by searching for an order that is a form of self-knowledge we may have the opportunity to broaden the reach of architecture. By focusing on the receiver and the perceptual commonalities, we can inform our production. "There is mystery enough in the wonder of (the body's) creation and operation without creating a mystique of ignorance around what can be known."⁶

⁶*Bartenieff, I., and Lewis, D. Body Movement: Coping with the Environment (New York: Gordon and Breach Science Publishers, 1980), p. xiii.*

This consideration of the commonalities of embodiment as a function of self-knowledge may have the capacity to transcend the ever-widening gap between those who produce architecture and those who experience it. In our constant dialogue and analysis we generate new perspectives on architecture's content and form, but there is a potential danger: our emphasis on analysis allows us to forget our audience. It is easy to get caught up in the philosophy and push aside the possibility of other aspects, and forget that architecture can be experienced at a non-verbal level. Our intellectual analysis often blocks any deeper reading. "Between the self that analyzes perception and the self which perceives there is

always a distance.”⁷ The problem is not the inherent gap, but rather when the split is not recognized, and objective analysis is equated with reception. This split is, however, not limited to architecture: it is more fundamentally a characteristic of the entirety of our modern existence. Alan Calquhoun has noted that “during the last 250 years, it has become increasingly possible to detach the aesthetic reception of works from the conditions of their creation...the space of possibilities of the artist and that of the spectator no longer coincides.”⁸ The possibility of truly communicating through an unstable sign system such as architecture continues to diminish. This is why architects today have to be as much archaeologists and sociologists as they are philosophers and formalists; they must also explore the psyche to understand what meaning is to those around them.

⁷Merleau-Ponty, Maurice. *The Phenomenology of Perception* (London: Routledge and Kegan Paul Ltd., 1962), p. 43.

⁸Calquhoun, Alan. “Post-Modernism and Structuralism: A Retrospective Glance,” in *Assemblage Vol. 5* (Cambridge: MIT Press, 1988), p. 15.

Although embodied experience is fundamental to the total architectural experience, the amount of research conducted on this subject is remarkably limited. However, theoretical contributions have, by the subject’s very nature, a long, if not extensive, history. Considerations of the body in theory go as far back as theory itself, to Vitruvius’ classical discussions of scale. But most engagement of the body remained limited. It was not until the late seventeenth and early eighteenth centuries that Laugier articulated a consideration of the origins of built form. His “Primitive Hut” was an attempt, however culturally bound, to fix some conception of what the earliest and most fundamental built structures may have been. Although Laugier addressed the ‘essential’ character of architecture, the work still failed to make any connection in the relationship between the perceptual body and the physical form. In the late nineteenth century the fundamental characteristics of embodiment and perception were extensively considered. As man became more conscious of his own being and own history, he began to engage in explorations for self-

knowledge. The forty years between 1890 and 1930 were perhaps the most productive years in forging an understanding of architecture as a function of the human perceptual body. Schmarsow, a German art historian of the period, brought embodiment and essence together in his conception of "Raumgestaltung," or 'space-forming'. Using the perceptual empiricism of nineteenth century psychologists as his foundation, Schmarsow reconsidered architecture as a spatial phenomenon. "Despite substantial differences, the empiricist theories...all shared the belief that spatial ideas are not a priori intuitions but the fusion of impressions of bodily movements on the mind. Schmarsow's indebtedness to nineteenth century theories of optical perception lay in his acceptance of this associationist theorizing."⁹ His realization that our perception of the architectural environment was a product of the senses in relation to bodily movement--kinesthetic perception--was a clear advance. Thus spatial form took shape through the interaction of bodily structure, nature and movement. Schmarsow's most profound observation came through in the interpretation and understanding of perceptual activity. Depth perception was inexplicable through conventional understandings of vision. Psychologists had conceived that the sensation of depth was developed through the relationship of vision to human movement, and that a conception of depth could only arise out of the comparison of one perception relative to the next. Thus, he conceived of spatial thinking as a specific realm in itself within consciousness. While Schmarsow had a very clear picture of architecture as space, he did not consider space in terms of meaning, and he failed to adequately relate perception to cultural phenomena.¹⁰

⁹*Schwartzter, Mitchell, "Schmarsow's Conception of Space", Assemblage Vol. 15 (Cambridge: MIT Press, 1991), p. 56.*

¹⁰*Ibid., p. 54, 57, 58.*

Bringing a more empirical perspective to architectural perceptual aesthetics was the Vkhutemas (Higher State Artistic Technical Studies), an academic institution of architecture in the Soviet Union. From 1917 to 1927, under the direction of Nikolai Ladovsky, the state's newly found social concern and responsibility

was a fundamental impetus for the new academies that emerged. Thus, schools of art, like the Vkhutemas, became much more involved in the study of reception than in production. This was a significant shift in terms of architectural education. The three introductory courses at the Vkhutemas were space, color and volume, corresponding to architecture, painting and sculpture. "Two theories developed by Ladovsky--space as the primary material of architecture and perceptual psychology--were accepted without debate in the Vkhutemas in 1921 as fundamental principles in the formation of the new architecture."¹¹ Space took a different form from the traditional conceptions: architecture built around the notion of 'space' helped to undermine the conventional concept of space that had been based on the singular perspective. Space had evolved into space-time: it became continuous and non-hierarchical. Many factors could be seen as contributing to this development, but two seem most prominent: Einstein's theory of relativity, and the perception as a function of movement, both of which brought a temporal variable into the equation of space. Ladovsky's interest in perceptual psychology led him to open his Psycho-Technical Research Laboratory in 1927. In a search for a collective and classless architecture, Ladovsky sought universal principles of human perception, trying to identify an objective foundation upon which the new architecture for the new state could develop.¹² In his search for universal principles of perception in order to make architecture understandable to all people, Ladovsky stressed "possibility and multiplicity rather than determinism and triviality."¹³

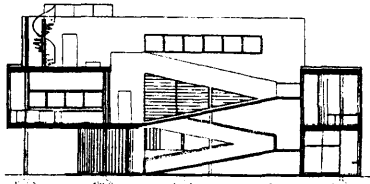
Late nineteenth and early twentieth century studies on perceptual psychology did have a significant impact on modernism, but primarily in an indirect way. Although the articulation of space in modernism tended toward formal explorations, there were obvious and prominent exceptions. Mies' Barcelona Pavilion and much of LeCorbusier's work engaged a moving subject. After LeCorbusier had spent considerable time in Africa, he noted: "Arab architecture

¹¹Gaspar, Zsuzsanna, "Vkhutemas: The Emergence of a New Type of Architectural Education in the Soviet Union," unpublished essay.

¹²Ladovsky's work was a continuation of psycho-physical research in the arts by Hugo Munsterberg of Harvard University.

¹³Gaspar, p. 8. For further information of the concept of varied experience in perceptual psychology, see Fiske, D., and Maddi, S. Functions of Varied Experience (Homewood, Illinois: The Dorsey Press, 1961).

¹⁴quoted in "At the End of the Architectural Promenade," in *Architecture and Body* by Lars Lerup, translated from *Oeuvre Complet de 1910-1929*; LeCorbusier and Pierre Jeanneret (Zurich: Editions Dr. H. Girsberger, 1937), p. 24.



gives us a precious piece of information. It is appreciated while walking, with the feet; it is walking, while moving, that one sees the development of the architectural order. It is a principle contrary to the one used by baroque architecture that is conceived on paper from a fixed theoretical point. I prefer the insights of Arab architecture."¹⁴

LeCorbusier conceived of his Villa Savoye as an "architectural promenade," an experience of movement within space, but also as a continuity of movement beyond the house itself. But throughout the height of the modernist period there were no real considerations of the signification of embodied experiences. Most of modernism looked to other realms: technology, function, social issues, and geometrical form. Ultimately, the mute formalism that evolved brought about the onslaught of post-modern architecture and a discourse that attempted to engage some form of language in the urban environment.

There has been considerable discussion regarding meaning in architecture for the past thirty years, but this consideration has tended towards the conceptual and intellectual realms, as opposed to embodied meaning. The perceived banality of typical experience has tended to allow this subject matter to go unnoticed, with few exceptions. Christian Norberg-Schulz, in his works *Intentions in Architecture* and *Existence Space and Architecture* considered space and spatial phenomena as primary in a modern consideration of architecture. Taking from Heidegger, Norberg-Schulz emphasized place and dwelling in his consideration of existential or psychic space. Dwelling represented the fundamental character of the way we as human beings exist here on Earth. Norberg-Schulz, attempting to build on perceptual and Gestalt psychology, argued that we experience the world through schematizations, on the basis that certain perceptual properties of the environment remain constant. Schemata represented systems of perceptual coherence that were connected to particular stimuli. Although Norberg-Schulz did not

extensively deal with perceptual experience separate from the impacts of cultural phenomena, his work still offered a significant departure in its search for meaning in space. But even though Norberg-Schulz engaged space and experience, he did so from a perspective of abstract, objective rationality, that was selective in an analysis of reception. Architecture, he said, cannot take the immediate experience as its point of departure.

What one describes in this way are subjective architectural experiences, and one would have to arrive at the absurd conclusion that 'architecture comes into being only when experienced.' It is, therefore, nonsense to say that man is always the center of 'architectural' space, and that the directions of architectural space change with movements of the human body. Architectural space certainly exists independently of the casual perceiver, and has centers and directions of its own.¹⁵

Yet it is questionable why one should be concerned about architecture when it is not within the perception of human beings. This statement testifies to Norberg-Schulz's formalist and fully objective position, his apprehension toward relativism, and ultimately indicates why much of his discussion tended to be unfruitful: although his work revolves around a nostalgia for place and place-making, which pre-suppose human presence, his position fails to engage reception or the way in which people engage their environment at an embodied or pre-conceptual level. "The new synthesis of logic and empiricism of our day has taught us that it is meaningless to assume that domains of knowledge exist where the intellect is not competent."¹⁶ Although Norberg-Schulz attempted to engage the body, meaning was still posited as a function of conceptual structures (i.e. - in our reflection upon experience), and did not engage the body in terms of perceptual comprehension. Likewise, Kent Bloomer's and Charles Moore's 1977 *Body, Memory and Architecture* had difficulty resolving the same dilemma: how to consider the body at a pre-conceptual level.

As architectural meaning drew closer to two-dimensional representation--architecture as a purely visual phenomenon--new

¹⁵Norberg-Schulz, Christian, *Existence, Space and Architecture* (London: Studio Vista, 1971), p.13.

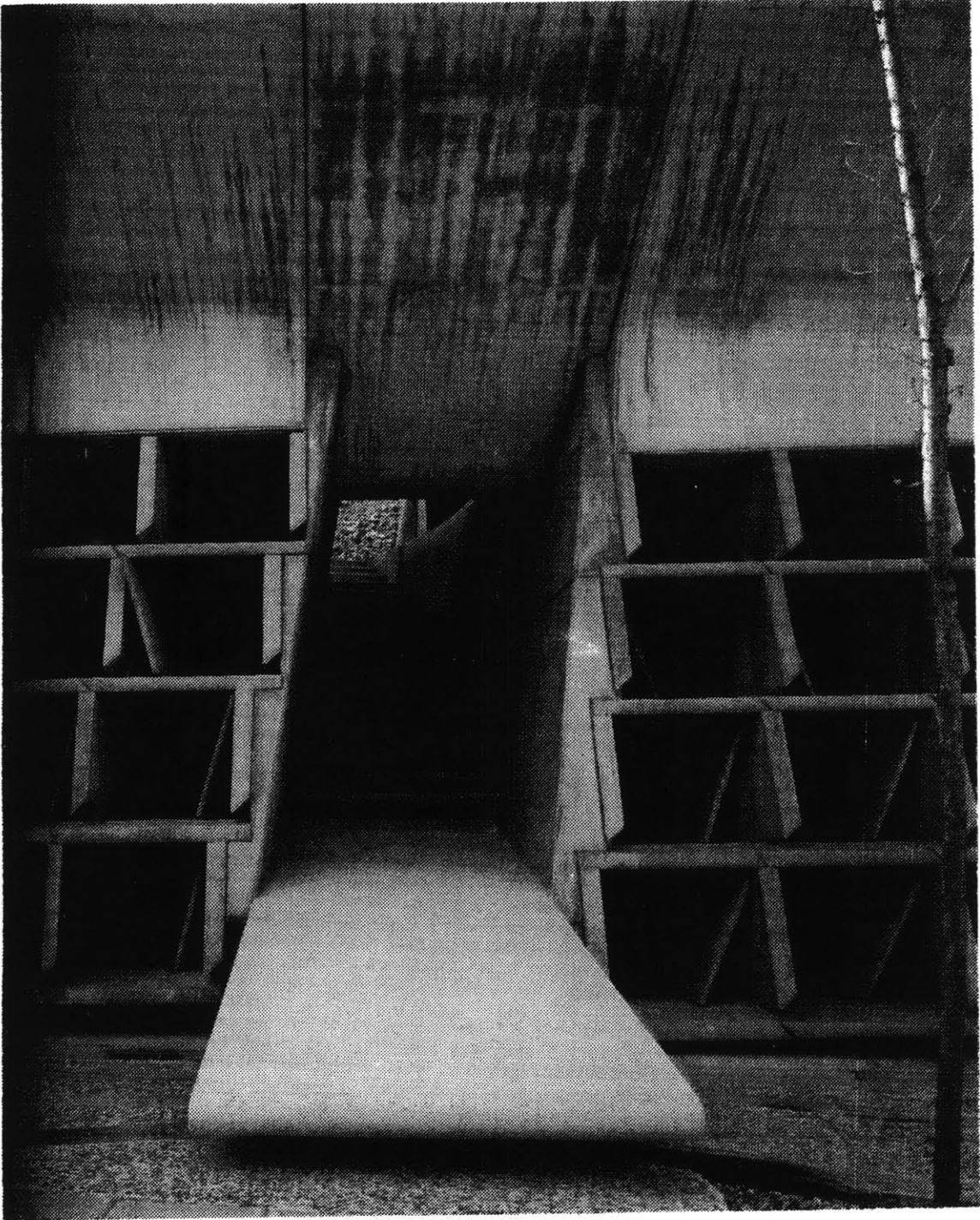
¹⁶Norberg-Schulz, Christian, *Intentions in Architecture* (Cambridge: MIT Press, 1965) p. 82.

approaches to architecture emphasized the experiential; some turned to phenomenology. Phenomenology addresses the discrepancy between the analysis of our world and our experience; it attempts to describe and explain our experience of the environment. Phenomenology asks the question "What does architecture mean?" The phenomenological view is taken by those primarily interested in looking at architecture as an artifact, as opposed to semiological models--which ask the question "How does architecture communicate meaning?"--which may be appropriated in the interest of designing architecture. Although phenomenology has had success in considering meaning and experience in terms of the body (although always defined in the context of the total experience), it has been less successful in generating methodologies for architectural design. Thus, this thesis enters into a discourse which needs to address the discrepancies between architectural analyses, oriented to the way we apprehend meaning, and those responsive to the necessity for models for design implementation.

This thesis thus surveys a wide range of ideas from an equally dispersed array of fields. The material investigated comes under three main classifications: 1) embodied understanding, 2) embodied meaning in architecture, and 3) time, movement and relationships in aesthetic theory. The research comes out of environmental psychology, cognitive sciences, and contemporary aesthetic theories. None of the works, in themselves, are complete when it comes to discussing architecture and body, but by considering them together and interactively, we get a clearer understanding of embodied experience than we otherwise could. There will of course be criticism of this dispersal of research sources, as either not being rigorous, or for not considering that the foundational assumptions of such theories might not coincide, and could possibly be found to be in opposition. But rather than dispersal

as being a weakness, it may be a strength, because exclusivity denies the possibility of alternative thoughts and considerations to arise from their interaction. The different ways of conceiving our world also allow for a form of empirical confirmation of similar ideas in different realms, and perhaps provides a way of perceiving the problems in one or another, and eliminating any ambiguity in both.

Chapter One surveys four primary texts on perception, our understanding of perception at a pre-conscious level, and our ways of conceiving of and analyzing perception and its impact on how we relate to the world. The following chapter relates this understanding of perception specifically to architecture, and looks at recent theories of embodied meaning in architecture. Chapter Three investigates theories of time and movement in the aesthetic realm. Finally, Chapter Four attempts to indicate possible directions and points of departure for the development of a synthesized, comprehensive theory of embodied kinesthetic meaning in architecture. While none of the separate investigations of each topic claim to be complete, it is hoped that the survey of the material will suffice to bring up as many relevant issues as possible. This thesis thus seeks to reveal certain consistencies in human understanding, and to demonstrate the implications of embodied meaning on architectural design. The goal is to demonstrate the embodiment's substance and value, its applicability, and to define the rules of its use; as well as to offer an alternative focus in the conception of meaning in architecture. Because of obvious variations between people and cultures, any principles discovered herein should be considered as guidelines, not as laws. Ultimately, the goals of this thesis can be reduced to outline a value system -- a system which hopes to improve the quality of life by expanding the range of human experience and by understanding the relationships between people and their environment.



EMBODIED UNDERSTANDING

.....

.....

A theory of embodied meaning in architecture requires a conception of embodied understanding--how we come to comprehend what our senses tell us. In order to develop a theory of embodied understanding, we need to look at perceptual psychology; the work of J.J. Gibson has assumed a fundamental role in all late twentieth century perceptual psychology. In his book *The Senses Considered as Perceptual Systems*, Gibson clearly defines the focus of his study; he distinguishes perception, ways of seeking and extracting information, separately from sensation and emotion. Sensation might be defined as the impression made on a perceiver while he or she is engaged in detecting the world.¹ Gibson suggests that the inflow of perceptual information does not coincide with the inflow of sensation; thus we can detect something without the accompaniment of sense impressions. The subjectivity of sensations is cumbersome for analysis because of the difficulty in cataloging the vague responses of introspection, which are required to access sensations. (While he does not deny the productivity of introspection in terms of perception, he does suggest that it has limitations which may be overcome when perception is considered in relation to the study of animals.) The way we apprehend information is Gibson's focus.

¹Gibson, J.J., *The Senses Considered as Perceptual Systems* (Boston: Houghton Mifflin Co., 1966), p. 99.

Given the limits of perception, perhaps the most difficult task is to define the parameters of how the subject obtains information. Endless theories in architecture and elsewhere have wandered aimlessly because of a misunderstanding of this fundamental structure to all theories of perceptual aesthetics. Gibson

²*Ibid.*, p. 33.

argues that conventional experiments of perceptual psychology tend to be with passive participants; and although such experimentation has provided substantial knowledge about passive receptivity, they tend to be unsatisfactory because they do not explain how we accomplish sense perception. As an example, Gibson points out our tendency to equate the eye with a camera; but the eye is obviously not a camera in the sense that it is self-focusing, self-setting and self-orienting.² Much of our perceptual ability requires human action. But at the other extreme, many of those who do build upon perceptual psychology tend to assume vast supplementation of perception from cognitive activity. Gibson emphasizes that perception can take place without the intervention of intellectual systems. Instead, he proposes that within perception there are both active perceptual organs and passive receptors. Active systems search, although this does not necessarily assume a conscious search, whereas passive systems respond.

³*Ibid.*, p. 4. *Although the auditory system may have a certain impact on architecture, there is nothing truly revealing offered in Gibson's account; for more information on the role hearing plays in our experience of architecture, see bibliography.*

Gibson describes five separate sense modalities somewhat distinct from conventional sense categorization; these are basic-orientation, haptic, vision, auditory and taste-smell. Only three of these explorations, however--haptic, basic-orientation, and vision--provide any new insight into our understanding of architecture.³ There are two key factors that determine our perceptions. The first is that all of the perceptual systems overlap one another in their apprehension of information: they are not, in our own processing, mutually exclusive. As we explore, information is picked up by one or a combination of perceptual systems. When the senses work together they confirm one another. The second aspect is not only core to Gibson's theory of active perception, it is absolutely fundamental to this thesis: **the apprehension of stimulation and information is primarily mediated by bodily movement of some kind.** The concept of *kinesthesia*, which may be defined as sensitivity to and registration of one's own body movement in relation to the changing perceptions of the transformed environment,

pervades all of the senses (especially those that are significant to architecture), and is almost never specific to any one perceptual system. Stimuli is obtained through movement, and not imposed simply upon passive, static human beings. Kinesthesia produces temporal as well as spatial understanding.

The basic-orienting perceptual system provides a frame of reference for all of the other senses to actively or passively obtain information. The vestibular apparatus of the inner ear responds to gravity transitions in movement and correlates equilibrium: "It can specify starts and stops, pushes or pulls, or positive and negative accelerations in a horizontal direction. It can probably register short motions place to place, but not motion as such."⁴ It is responsive to the rhythm of our bodies in pedestrian motion. Ultimately the basic-orienting system, by co-varying with the haptic system, provides a double registration of the ground and our orientation to gravity and makes upright posture possible. And from a balanced state, other perceptions may take place.

⁴*Ibid.*, p. 69.

The haptic system has a complex set of receptors throughout the body that respond to more than just that which we refer to as 'touch' or temperature, and more than we account for through personal reflection. "The inputs of reportable sensation, as these have been catalogued by introspection, are evidently quite inadequate to account for the richness of haptic perception."⁵ Along with actual interaction with objects, the haptic system picks up body movement, body position or poses, through the sensitivity of joints: the receptors provide a sort of three-dimensional grid that registers the position of the body relative to the force of gravity and the actual physical connection between body and ground. "The haptic system, then, is an apparatus by which the individual gets information about both the environment, and his body. He feels an object relative to the body and the body relative to an object. It is the perceptual system by which animals and men are literally in touch with the environment."⁶

⁵*Ibid.*, p. 134.

⁶*Ibid.*, p. 97.

⁷*Ibid.*, p. 156.

The visual system overlaps all other perceptual systems to register a certain 'objectivity' through its capacity for confirmation, but more importantly through the trust that has been established in it as a system. "Vision is useful," Gibson says, "for 1) detecting the layout of the surroundings, 2) detecting changes, and 3) detecting and controlling locomotion. In each of these ways vision may pick up a) only gross differences, b) intermediate differences, or c) all these plus small and subtle differences."⁷ These changes or differences require a temporal condition, however brief. Vision has become the dominant system in man because the opportunities for information perception are so vast, when sight is considered as a function of movement. "When the forms of the optic array at one station point are supplemented with all possible transformations to other station points, and when sequence over time is added to order in space and all motions are considered, it is obvious that the specifying capacity of this super-stimulus is unlimited. It is an inexhaustible reservoir of potential information about the world and about the individual's behavior in it."⁸

⁸*Ibid.*, p. 163.

⁹*Ibid.*, p. 40.

According to Gibson, the natural structure of the environment, as we perceive it, consists of both spatial and temporal order. "A natural stimulus for ...perception has the following characteristics. First it always has some degree of adjacent order: a structure or pattern in relation to a receiver. Second, it always has some degree of successive order: sequential structure. And third, it always, therefore, has some component of non-change and some component of change."⁹ Kinesthesia requires a temporal order; one of the failures of conventional studies of perception is the idea that 'space' is perceived, whereas 'time' is remembered. Gibson suggests that in the short term, our perception of "natural stimulations consist of successions as truly as it consists of adjacencies."¹⁰ Thus true memory storage is not required for the perception of succession. Instead, as evidenced in Gibson's theory on perceptual learning, successive order is a function of the

¹⁰*Ibid.*, p. 276.

relationships that arise in time; there is a perceptual continuity in the blending of perceptions from one moment to the next. Experimental research seems to indicate that the improvement of perceptual skills is an improvement in attention, and an increased 'noticing' of critical differences, with less noticing of irrelevancies. "The 'differentiation theory' of perceptual learning" as Gibson identifies it, is the process of "learning what to attend to, both overtly and covertly. For the perception of objects it is the detection of distinctive features and the abstraction of general properties."¹¹ The detection of similarity or difference reflects the perceptual system's earlier adjustment or "tuning" to the preceding stimulus; and because the system has already perceived certain constants of stimulus information, it is already in a position to perceive those elements again, and take note of the critical differences. Thus we find that the transformations of patterns are just as stimulating as the patterns themselves are. Gibson argues that within both adjacent and successive order exist 'perceptual invariants.' "Besides the changes in stimuli from place to place and from time to time, it can also be shown that certain higher-order variables--stimulus energy, ratios and proportions, for example--do not change. They remain invariant with movements of the observer and with changes in the intensity of stimulation...These invariants...correspond to the permanent properties of the environment." He suggests that invariants of perception are indicative of the invariants of our meaningful world.¹²

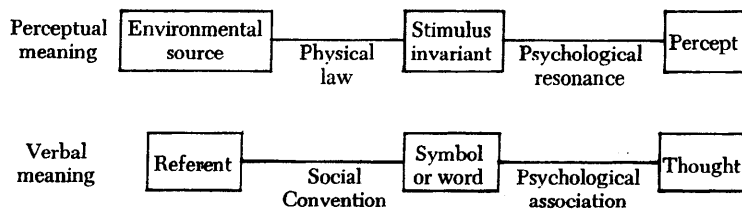
¹¹*Ibid.*, p. 52, 270.

¹²*Ibid.*, p. 3, 284.

Gibson argues that the natural structure of perceptual stimulation from the environment has meaning. It is not untypical to find theories of signification denying meaningful substance within the perceptual level because of the difficulty and confusion we find in attempting to represent it. He identifies three general types of meaning: that which is the result of the natural structure of the environment, that which is a result of our representations (such as verbal representation), and meaning that is a product of socially coded or conventional signals (culturally defined common

¹³*Ibid.*, p. 245.

understandings).¹³ Our comprehension of each form of meaning is progressively less and less direct (In other words, representations are less direct than natural structures, and social codes are less direct than representations), which therefore require greater and greater knowledge to extract meaning. He demonstrates this distinction between natural structures and representations through the comparison of the schematic models of verbal meaning and perceptual meaning.



Although this diagram and its structure are somewhat questionable, the key significance lies in Gibson's acknowledgment of the existence of these spheres of meaning, and the distinction between them.

But whereas Gibson indicates the existence of 'spheres' of meaning, Mark Johnson proposes a model of understanding constructed around similar distinctions of meaning but organized as 'layers.' In his 1987 book *The Body in the Mind*, Johnson challenges conventional objectivist approaches to the question of how man experiences the world. Objectivist theories treat meaning as an abstract, ahistorical, disembodied phenomena, and often organize themselves around logic and language. Objectivism, since Descartes, tends to split mind and body; it creates a gap:

...between our cognitive, conceptual, formal or rational side in contrast with our bodily, perceptual, material and emotional side. The most significant consequence of this split is that all meaning, logical connection, conceptualization and reasoning are aligned with the mental or rational dimension, while perception, imagination and feeling are aligned with the bodily dimension. As a result, both non-propositional and figuratively elaborated structures of experience are

regarded as having no place in meaning and the drawing of rational inferences.¹⁴

¹⁴Johnson, Mark, *The Body in the Mind* (Chicago: The University of Chicago Press, 1987), p. xxv.

Johnson argues that this gap partly arises in the discrepancy between our attempts at theory-neutral analysis and the reality of our experience. "Objectivism treats all meaning as conceptually and propositionally expressible in literal terms that can correspond to objective aspects of reality."¹⁵ Although it is necessary that we use propositional language to describe our experience, we must not mistake our mode of description for that which is described.

¹⁵*Ibid.*, p. 5.

Alternatively, Johnson argues that any account of meaning must give a central place to embodied and imaginative structures of understanding. "The key to an adequate response to this (mind/body) crisis is to focus on something that has been ignored and undervalued in Objectivist accounts of meaning and rationality--the human body, and especially those structures of...understanding that emerge from our embodied experience."¹⁶ Our understanding of the world is partly a product of our bodily experience. Understanding is not simply after-the-fact reflections on experience (i.e. representations) it is rather the means by which we have those experiences in the first place. It is the way in which we apprehend the world at all levels.

¹⁶*Ibid.*, p. xiv.

Understanding is never merely a matter of holding beliefs, either consciously or unconsciously. More basically, one's understanding is one's way of being in, or having, a world. This is very much a matter of one's embodiment, that is, of perceptual mechanisms, patterns of discrimination, motor programs, and various bodily skills. And it is equally a matter of our embeddedness within culture, language, institutions and historical traditions.¹⁷

¹⁷*Ibid.*, p. 137.

There are embodied structures of understanding that allow us to have a meaningful world, and these embodied structures are a result of our interaction with, and our experience of the world. Experience is not here considered as perceptual phenomena of passively received sense impressions, but is inclusive of all those things that make us human: from basic perceptual and motor programs to emotional, historical social and linguistic dimensions. Yet embodiment is a significant

¹⁸*Ibid.*, p. 62.

and fundamental part of all experience and indicates a certain commonality between people. "...Because our bodies are very much alike with respect to their physiological makeup we would expect to find commonly shared (if not universal) gestalt structures for many of our physical interactions within our environment."¹⁸ According to Johnson, all knowledge of experience must have two components: some perceptual content that goes to the senses, and mental structures to organize and make sense of such content. While Gibson had concentrated on how the former took place, Johnson's focus is on creating a model for the latter.

¹⁹*Ibid.*, p. xxxvii.

The method I employ might be called a form of descriptive or empirical phenomenology, in that I will be attempting a kind of 'geography of human experience.' Such a geography seeks to identify the chief contours (structures) and connections that our experience and understanding exhibit. It would explore the emergence of comprehensible form and organization in our experience and the means we have of making sense of it. The test of its success is comprehensiveness, coherence, and explanatory power.¹⁹

²⁰ *Propositionality refers to mental representation; "A proposition exists as a continuous, analog pattern of experience or understanding, with sufficient internal structure to permit inferences." Ibid., p. 3-4.*

He is attempting to reveal the connections between our experience and our understanding. Similar to Gibson's divisions of meaning, Johnson is exploring non-propositional²⁰ and pre-representational structures of meaning that lay the foundation for conceptual and propositional forms. Rather than simply acknowledging the differences, as Gibson does, Johnson is attempting to relate these layers of meaning in some fundamental way.

Johnson argues that we derive abstract meaning out of recurring patterns of embodied experience. Image schemata, as he identifies them, are organizing structures of our experience and understanding that evolve out of bodily movements and perceptual interactions. Johnson notes that typical schema models of cognitive theory suggest that we order our knowledge through skeletal structures and detailed properties that provide an abstract framework for recurring patterns of experience. If we conceive of schemata as 'scripts,' for example, they would include elements such as

characters, settings, sequences of events, casual connections goals, etc.

A script is a structure that describes appropriate sequences of events in a particular context. A script is made up of slots and requirements about what can fill those slots. The structure is an interconnected whole, and what is in one slot affects what can be in another. Scripts handle stylized everyday situations. They are not subject to much change nor do they provide the apparatus for handling totally novel situations. Thus, a script is a pre-determined, stereo-typed sequence of actions that defines a well-known situation.²¹

²¹*Schank, R. and Abelson, R., Scripts, Plans, Goals and Understanding (Hillsdale NJ : Lawrence Erlbaum, 1977) p. 41.*

While Johnson acknowledges that these mainstream schema theories in cognitive research are correct, he also suggests that they are incomplete. Schema are not just templates to be filled in, he says, but are dynamic and malleable 'plans' for interacting with the environment. "They give expectations and anticipations that influence our interactions with our environment. The schema is not only the plan but also the executor of the plan. It is a pattern of action as well as *for* action."²² Further, Johnson notes that these mainstream schema theories need to be complemented by an exploration of schema that structure the way we experience the world on a bodily and perceptual level. Schema pervade all levels of understanding and have the capacity to interconnect percepts and concepts--similar to what Gibson had described as natural structures and representations. Image schemata are structures for cognitive processing of our experience, prior to any conceptual thinking, and therefore have a perceptual kinesthetic character. The mental operations that take place within image schemata are abstract analogs of physical experiences. Experimental evidence continues to suggest the significance of this kind of mental processing. The schemata are in no way rich and complex, but rather are abstracted in order to structure a range of possibilities that fill a certain pattern.

²²*Johnson, quoting U. Neisser, p. 21.*

Image schemata exist at a level of generality and abstraction that allows them to serve repeatedly as identifying patterns in an indefinitely large number of experiences, perceptions and image formations for objects or events that are similarly structured in the relevant ways. Their most important feature is that they have a few basic elements of components that are related by definite structures

and yet have a certain flexibility. As a result of this simple structure, they are a chief means for achieving order in our experience so that we can comprehend and reason about it. Typical schemata will have parts and relations. The parts might consist of a set of entities (such as people, props, events, states sources, goals). The relations might include causal relations, temporal sequences, part-whole patterns, relative locations, agent-patient structures, or instrumental relations. Normally however, a given schema will have a small number of parts standing in simple relations.²³

²³*Ibid.*, p. 28.

What image schemata do is to generate coherence for, establish unity within and fundamentally constrain our network of meaning. "In order for us to have meaningful, connected experiences that we can comprehend and reason about, there must be pattern and order to our actions, perceptions and conceptions. A schema is a recurrent pattern, shape and regularity in, or of, these ongoing ordering activities."²⁴ As dynamic and flexible systems, rather than as passive receptacles, Johnson argues that meaning is constructed and constituted through schema--meaning is not given ready-made. Schemata do not specify the truth conditions of reality, but rather, underlie that reality, and help to make it coherent for us by imposing a relative stability on our meaning structure. This stability, although originating as a function of our shared embodiment, is primarily a product of schemata becoming conventionally situated within our network of meaning. Embodied image schemata, patterns which exist pre-conceptually in our experience "have sufficient internal structure to generate (rational) entailments and constrain references, and thus to be propositionally elaborated."²⁵ Image schemata have an internal structure which constrains our understanding and generate definite patterns; in other words, they establish a range of possible patterns of understanding and reasoning. Therefore, Johnson argues, "much of the structure we find in the social, epistemic, and conversational or speech act domains is intimately related to parallel structure in our embodied experience."²⁶ Our logic and language structures use principles that are related to experiential perceptual structures.

²⁴*Ibid.*, p. 29.

²⁵*Ibid.*, p. 30, 22.

²⁶*Ibid.*, p. 63.

Embodied schemata give rise to pattern structure in all layers of meaning (i.e. help structure all thought) through what Johnson refers to as 'metaphorical projection.' Traditional conceptions of metaphor have characterized it as a minor form of expression and a non-essential literary figure of speech, but in recent years research in many fields have gravitated to metaphor. Johnson believes that metaphor is cognitively fundamental to our understanding, and is rooted in non-propositional structures of thought. Metaphor is a structure of transference that crosses categorical boundaries: "a process by which we understand and structure one domain of experience in terms of another domain of a different kind."²⁷

²⁷*Ibid.*, p. 15.

Metaphor, he says, carries a significant creative and constitutive burden in our thought. The body provides a place to derive metaphorical structure through embodied image schemata--a source domain--in order to help organize rational and propositional thought through metaphorical projection. Though these patterns exist (for us) pre-linguistically, "they can be considerably refined and elaborated as a result of the acquisition of language and the conceptual systems that language makes possible."²⁸

²⁸*Ibid.*, p. 48.

What begins to emerge from Johnson's concepts of image schemata and metaphorical projection is a stratification of knowledge through layers of meaning. Meaning goes deeper than conceptual understanding; conceptual and propositional meaning is built upon non-propositional meaning structures that emerge out of kinesthetic experience. Image schemata cross the boundaries between non-propositional and propositional layers to provide order and connectedness to our perceptions and conceptions. Johnson identifies two possible features of a source domain which may be metaphorically transferred to the source domain: *attributes* and *structural relations*.²⁹ As an example, Johnson explores the 'path' schema and its possible projections into language. All paths have three parts: a source or starting point, a goal or endpoint, and a sequence of points connecting them. Thus, these parts and their relationships indicate certain typical

²⁹*Ibid.*, p. 109-110.

characteristics for our path schema. 1) In moving from point A to point B you must pass through every point in between; 2) In our experience arises a certain directionality, even though paths are not inherently directional; and 3) here is a temporal dimension that arises in the movement from point A to point B. The internal structure for the 'path' schema grounds a number of metaphorical projections from concrete, physical source domain onto more abstract target domains, such as the metaphor 'purposes are physical goals.' "Here goals are understood as end points toward which my various physical actions can be directed. In the metaphor we are understanding very abstract purposes (such as writing a book, getting a Ph.D., finding happiness) in terms of the performance of various physical acts in reaching a spatial goal." If we conceive of 'states of being' metaphorically as 'locations,' the mapping of the schematic structures (from the concrete physical achievement of a goal onto the abstract domain of achieving a purpose), a range of linguistic instantiations arises.

Purposes are Physical Goals: Tom has *gone a long way* toward changing his personality. You have *reached the midpoint* of your flight training. I've got *quite a way to go* before I get my Ph.D. she's just *starting out* to make her fortune. Jane was *sidetracked* in her search for self-understanding. Follow me--*this is the path* to genuine happiness. You'll never achieve salvation unless you *change your course*.³⁰

³⁰*Ibid.*, p. 113-115.

There is a basic structural correlation between our physical experience and our abstract purposes in daily life. In this way, we can begin to see how embodied schemata begin to define a range of possible meaning structures. It would be difficult, for instance, to conceive of the metaphor "purposes are forms of containment" because the internal, schematic structure of 'purpose' and 'containment' do not coincide. Likewise, there is an obvious limit to our range of possible embodied experience. We are not quadrupedal, we cannot fly: if we could our experience of the world and the world we would build would be considerably different.

To say that image schemata 'constrain' our meaning and understanding and that metaphorical systems 'constrain' our reasoning is to say that they establish a range of possible patterns of understanding and reasoning. They are like channels in which something can move with a certain limited, relative freedom. Some movements (inferences) are not possible at all. They are ruled out by the image schemata and metaphors. But within these limits, there is a measure of freedom or variability that is heavily context-dependent. Which inferences are sanctioned will depend, as we have seen, on the metaphorically organized background against which phenomena appear, questions are posed, investigations are performed, and hypotheses are formulated.³¹

³¹*Ibid.*, p. 137.

The 'path' schema is of course just one possible schema of many. but Johnson suggests there is a relatively limited number of schema that are extensively pervasive within our meaning structures. To serve as a source domain a schema should be pervasive in experience, well understood because it is pervasive, well structured, simply structured, emergent and well demarcated.³²

It is through *imagination* that we are able to organize mental structures into meaningful systems, including the ability to metaphorically project image schemata from one domain to another. Johnson extends the function of imagination beyond conventional associations of artistic creativity, invention or novelty, and the resulting dichotomy between reason and imagination that has come to dominate Western thinking. Instead, he argues that imagination is a significant part of rationality. Drawing on Kant, Johnson derives a theory which places imagination in a central and pivotal position within all understanding. Instead of a conception of imagination as irrational (a result of the fact that there does not seem to be any logic to creativity) he proposes that imagination pervades and structures all thought. "Once we no longer demand a disembodied rationality (as we have seen evidenced in image schemata and metaphorical projection), then there is no particular reason to exclude embodied imagination from the bounds of reason." Imagination is the way we manipulate those schemata and relational structures that are fundamental to our understanding at all levels in order to make

³²Here is a partial list, according to Johnson, of common schemata (*Ibid.*, p. 126.):

- | | |
|-------------------------|---------------------|
| <i>container</i> | <i>balance</i> |
| <i>blockage</i> | <i>counterforce</i> |
| <i>enablement</i> | <i>attraction</i> |
| <i>path</i> | <i>link</i> |
| <i>cycle</i> | <i>near-far</i> |
| <i>part-whole</i> | <i>merging</i> |
| <i>full-empty</i> | <i>matching</i> |
| <i>iteration</i> | <i>contact</i> |
| <i>center-periphery</i> | <i>mass-count</i> |
| <i>surface</i> | <i>compulsion</i> |
| <i>superimposition</i> | <i>process</i> |
| <i>object</i> | <i>collection.</i> |
| <i>splitting</i> | <i>scale</i> |
| <i>restraint</i> | <i>removal</i> |

³³*Ibid.*, p. 168-170.

connections for meaning. Imaginative creativity is a function of how we metaphorically extend, reorganize and connect schemata in new ways, and this "occurs at all levels of our experiential organization, and not just in those rare moment when we discover novel ideas. We are imaginatively creative every time we recognize a schema in a new situation we have never experienced before and every time we make metaphorical connections among various pre-conceptual and conceptual structures."³³ Johnson suggests that an adequate theory of imagination would include prototypical categorization, schemata, metaphorical projections, metonymy (another form of projection), and an understanding of the narrative structure of all experience. Ultimately, meaning is inextricably tied up with understanding, and understanding arises within the systems that structure imagination. Human understanding constitutes our experience of a world that we can make sense of, based on a cognitive model of structures, extensions, transformations and relations. Because schemata emerge in embodied experience, the integral relationship between body and mind, and body and meaning, becomes clearer.

³⁴*Ibid.*, p. 175.

This particular formation of the relevant notion of understanding, as a way of 'being in' or having a world, highlights the dynamic interactive character of understanding and meaning. Grasping a meaning is an event of understanding. Meaning is not merely a fixed relation between sentences and objective reality, as Objectivism would have it. What we typically regard as fixed meanings are merely sedimented or stabilized structures that emerge as recurring patterns in our understanding.³⁴

³⁵*Ibid.*, p. 195.

Johnson's exploration leads him to question the methods we utilize to organize our knowledge: "Are embodied image schemata and metaphorical systems of understanding sufficiently shared to be considered relevant to knowledge, or are they too subjective, unstructured, and unconstrained?"³⁵ He acknowledges those who would argue that to conflate reason with imagination can only lead to relativism. But rather than falling into the standard dichotomy of a fixed and value-neutral rationality as opposed to anything goes relativism, Johnson suggests that the depth of embodied

understanding offers a middle ground between foundationalism and relativism. He posits a new objectivity where authority shifts from fully propositional logic structures to account for this developed understanding of our own mental activity. There are three key notions to this new objectivist approach: understanding, imagination and embodiment. He argues that objective characteristics come out of our collective way of perceiving and understanding the environment, and that subjectivity has less to do with the way we perceive our environment and more to do with the interpretations and experiences we bring to these perceptions. Truth is always relative to our understanding, but as Johnson has demonstrated, our understanding is in many respects commonly embodied. An adequate theory of objectivity must make room for the role of human experience and its position within our understanding. Shared understanding is more than shared concepts and propositions, it also includes and is partly structured by embodied structures of understanding.³⁶ Thus, experience and understanding, broadly conceived to include culture, language, theories, as well as physical experience all partake of the reality of our bodies and our contextual interaction.

Objectivity consists, then, in taking up an appropriate publicly shared understanding or point of view. This involves rising above our personal prejudices, idiosyncratic views, and subjective representations. On the account I have sketched, objectivity is thus made possible by the public nature of image-schematic and basic-level structures of understanding, and the metaphoric and metonymic projections based upon them. Objectivity does not require taking up God's perspective, which is impossible; rather, it requires taking up appropriately shared human perspectives that are tied to reality through our embodied imaginative understanding.³⁷

³⁶*For the parameters of Johnson's new objectivity, see p. 206-211.*

³⁷*Ibid., p. 212.*

Johnson's position of embodied understanding points to a 'pre-consciousness': a space of thought where we register experience prior to positing it. Maurice Merleau-Ponty arrived at a similar conclusion but with a greater emphasis on the implications of perception and movement on our non-propositional understanding

³⁸*Merleau-Ponty, Maurice, Phenomenology of Perception (London, Routledge and Kegan Paul Ltd., 1962), p. 61.*

³⁹*Ibid., p. 130.*

⁴⁰*Ibid., p. 213.*

⁴¹*Ibid., p. xxi.*

⁴²*At this point it is important to point out the distinction between Merleau-Ponty's interpretation of phenomenology, which attempts to reveal underlying causes of*

and experience of space. In the *Phenomenology of Perception*, Merleau-Ponty searches for the essence of perception and the essence of consciousness. He is more concerned with what makes experience possible than he is with trying to discover what it is. It is a study of the "advent of being to consciousness, instead of presuming its possibility as given in advance."³⁸ The search for essence is not a search for an idea defined by discourse, but for the very way in which we access the world. To accomplish this investigation of perception he looks to phenomenology, as phenomenology seeks the essential in existence. He rejects a strict empiricism which by its very method of inquiry assumes a conscious awareness of all perception. Phenomenology "is the search for a philosophy which shall be a rigorous science, but ... also offers an account of space, time and the world we live in." (vii) Phenomenology brings together the extremes of objectivism and subjectivism, and attempts to derive a rationality based on the overlap and confirmation of perceptions. Merleau-Ponty emphasizes that the split between objectivism and subjectivism is more a function of the mode of thought we are in: the core of consciousness lies in the subjective spontaneity of experiencing something firsthand, and in the objective sedimentation of knowledge that occurs in the reflection upon it after the fact.³⁹ Each is a mode of consciousness. But as Merleau-Ponty cautions, his theory "must not merely put one view of the world in place of another, it must show us how the naive view of the world is included and transcended by the sophisticated one."⁴⁰ The unfinished nature of phenomenology is inevitable, he notes, because "phenomenology's task (is) to reveal the mystery of the world and of reason"⁴¹ through analysis, but it gives almost no explicit indication of a productive methodology for the manipulation and implementation of that which it reveals.⁴²

The comprehensible unity of our experience is not a formal unity, but a form of perceptual organization. Although the senses are distinct from each other, "in so far as each one of them brings with it

a structure of being which can never be exactly transposed,"⁴³ perception is mediated by a natural organization that interconnects the senses to provide a cohesive unity of experience. Merleau-Ponty argues, as Gibson does, that the senses overlap and integrate with one another as part of a total perception.

experience, and that of most phenomenological discourse in architecture which tends to be satisfied with descriptive explanations of what our experience is.

⁴³Merleau-Ponty, p. 225.

It is true that the senses should not be put on the same basis, as if they were all equally capable of objectivity and accessible to intentionality. Experience does not present them to us as equivalent: I think that visual experience is truer than tactile experience, that it garners within itself its own truth and adds to it; because its richer structure offers me modalities of being unsuspected by touch. The unity of the senses is achieved transversally, according to their own structure. But something like it is found in binocular vision, if it is true that we have a 'directing eye' which brings the other under its control. These two facts--the taking over of sensory experiences in general in visual experience, and that of the functions of one eye by the other--prove that the unity of experience is not a formal unity, but a primary organization.⁴⁴

⁴⁴*Ibid.*, from footnote on p. 234.

In our analysis we are capable of breaking perception into its constituent parts, but in experience this is typically not the case; there is something foundational beneath our understanding of the senses that unites them. Like Gibson and Johnson, Merleau-Ponty argues that perception goes through a simplification or (as Johnson would describe it) a schematization process for comprehensibility as a part of its natural structure. We are capable of perceiving something without knowing all of its constituent parts: perception constructs understanding from the determinant qualities of our perceptual range, and in this construction perception purges objects of their ambiguity and infinite detail, and thus offers up the pure ideal rather than the intricacy of reality. All experiences tend towards a generality. A form of 'natural judgement' or affective appraisal takes place within this schematization process of perception. Rather than judgement considered solely as a reflective, explanatory principle, Merleau-Ponty sees it as a constitutive function of pre-conscious perception. "Perception would be a judgement, which ... is unaware of the reasons underlying its own

⁴⁵*Ibid.*, p. 41-42.

formation, which amounts to saying that the perceived object presents itself as a totality and a unity before we have apprehended the intelligible law governing it..."⁴⁵ By giving us a perspective, or framework from which to interact with the world that is unique to each of us, natural judgement brings unity to our world. We find a parallel to natural judgement in Johnson's concept of 'embodied understanding,' in which both attempt a resolution of pure perception and the experience which we bring to it. Thus we find Merleau-Ponty indicating the existence of a 'non-positing consciousness' to structure our understanding of experience, distinct from intellectual consciousness. This non-positing or pre-consciousness is a pre-objective mental space that structures our understanding of experience: from organizing our relative perceptions in terms of adjacent and successive order,⁴⁶ to the integration of the separate sense modalities, schematization for easier comprehension of our complex environment, and the resolution of our pure perception and our experience in terms of affective appraisal.

⁴⁶*Ibid.*, p. 242.

⁴⁷*Ibid.*, p. 49.

The perception of our own body and the perception of external things provide an example of non-positing consciousness, that is, of consciousness not in possession of fully determinate objects, that of a logic lived through which cannot account for itself, and that of an immanent meaning which is not clear to itself and becomes fully aware of itself only through experiencing certain natural signs. (The meaning in our pre-consciousness is not explicit, nor can it be so.) These phenomena cannot be assimilated by objective thought...⁴⁷

Within the realm of the pre-consciousness, sense and significance are not even theoretically separable. It is, as phenomenology describes it, our being-in-the-world.

This pre-consciousness is where the physicality of our bodies interacts with the mental structures that account for them. Merleau-Ponty posits two types of connections between the psychic and physiological: one in terms of the perceptual and sensual body, the other in terms of bodily space-time. Merleau-Ponty looks at certain medical phenomena where, for example, a patient who has lost a limb experiences or senses a 'phantom limb' as if that appendage was

still present. But when nerves are severed that would normally transfer information from the limb to the brain, the 'phantom' disappears. The phantom therefore cannot be a product of the subconscious, or of imagination, and yet there is no fully physical explanation available. "What has to be understood, then, is how the psychic determining factors and the physiological conditions gear into each other."⁴⁸ Merleau-Ponty acknowledges the difficulty in discovering some sort of common ground to these two, one which exists in space and the other which exists only in our consciousness, in order that they may bring about the resultant phenomenon. He suggests that memory is key: "the imaginary arm is then, like repressed experience (an abstraction out of a previous experience) a former present which cannot decide to recede into the past. The memories called up before the patient induce in him a phantom limb, not as an image in associationism summons up another image, but because any memory reopens time lost to us and invites us to recapture the situation evoked."⁴⁹ But Merleau-Ponty's analysis seems incomplete, and might have been more satisfactory had he had knowledge of Johnson's theory of embodied understanding. Embodied understanding suggests that we have abstract patterns of thought pre-existing in the pre-consciousness, anticipating, with a certain preparedness, the action of the limb. Memory recalls the arm into consciousness, and the mind searches for those existing schema necessary to process the memory and discover an 'image' of it. The schema which were designed to implement or respond to some action by the limb react to the memory, creating the phantom. This scenario suggests that the pre-consciousness is tied into memory and tied into the biological body through the nervous system in some fundamental way.

⁴⁸*Ibid.*, p. 77.

⁴⁹*Ibid.*, p. 85.

The other psycho-physical connection is not internally, but externally generated, in the spatiality created by the movement of the body. Merleau-Ponty considers how movement implicates our experience and our conception of space: "By considering the body in

⁵⁰*Ibid.*, p. 102.

movement, we can see better how it inhabits space (and, moreover, time) because movement is not limited to submitting passively to space and time, it actively assumes them, it takes them up in their basic significance which is obscured in the commonplaceness of established situations."⁵⁰ The connection between body and space is reinforced by perception, which (as Gibson demonstrated) pre-supposes movement of the body for the apprehension of information. Depth perception, for instance, is a function of movement and experience and cannot be comprehended by vision alone. Likewise, the haptic and basic-orientation senses require a motor experience. The continually changing perceptions of kinesthesia form our primary understanding of space; bodily movement is our fundamental way of access to the world. Thus we come to see a certain 'spatiality of the senses,' as the senses are determined by movement. The body is a spatiality of situation, not a spatiality of position as are external objects; 'situation' pre-supposes an interaction between body and background primarily mediated through movement. The background is not merely externally linked to movement, but rather it "is immanent in the movement, inspiring and sustaining it at every moment."⁵¹ Our movement is as much a function of the space that contains us as it is of our own actions; we engage in movement which is not unrelated to our backgrounds, but which on the contrary, bears a highly determinate relation to them. He thus argues that movement and background are artificial divisions of a unified totality. Movement is the primary way by which we form relationships to space. If movement is necessary for perception, and if our perceptual embodiment organizes our understanding, then our very existence is spatial.⁵²

⁵¹*Ibid.*, p. 110.

⁵²*Ibid.*, p. 294.

Another approach to deriving new forms of objectivity based on movement and embodied understanding and their consequences on human existence and knowledge can be found in the work of John Schumacher. Along the path of development to the modern world,

he argues, man severed the connection between himself and the world by removing the dynamics of time. We are no longer 'loosely' connected with the world as we once were because the tendency is to consider everything separate from time. We no longer refer ourselves to the existing world, but rather, refer the world to ourselves in an abstract instantaneous moment. Schumacher argues that movement is fundamental to returning time and the body back into philosophical discourse and back to their privileged positions within our experience. Architecture, he says, ought to be designed "in a space that is not separate from time, so that built environments can be realized only through the movement of the people who use them."⁵³ For Schumacher it is a reconsideration of the terms of human *posture*--the way we make a place in the world relative to our own bodies and to that which surrounds us. "Through its posture a thing and that which stands around it are bound together."⁵⁴ His goal is edification, and ultimately to expand the possibilities within which we live our lives. He suggests that we can devise a new sense of intellectual objectivity through the "co-making" of inquiry: a co-making between ourselves and the world.

Our posture, the way we place ourselves in relation to, and form relationships with the world is fundamental to the way we experience, create and analyze that world.

How basic is posture? Well how indeed can a thing be in the world unless it makes a place there? To be in the world is to have a posture. Think for a moment about the different things in the world and the way they make places there. Each thing will have parts or features that are placed relative to each other in a certain order. Some relative placings are necessary, some are not, and of the latter, some are possible and some are not. Let us say, each thing has both a characteristic posture that distinguishes it from other kinds of things and a range of possible, optional postures that may also distinguish it from others of its own kind.⁵⁵

Our posture is a function inherently of our physical being, and optionally of our orientation; and our orientation can take one of two positions: absolute or relative. Schumacher attempts to give this distinction clarity in the dichotomy of being 'free' versus being 'loose'

⁵³*Schumacher, John, unpublished text from lecture given to architecture students at Pratt Institute, p. 3.*

⁵⁴*Schumacher, John, The Human Posture: The Nature of Inquiry (Albany: SUNY Press, 1989), p. 18.*

⁵⁵*Ibid., p. 18.*

from the world. Rather than accepting Merleau-Ponty's claim that body and background exist in a unique totality, he argues that we have a certain 'looseness' or flexibility in our connection with our world. He notes that bees, for instance, are loose from their world, but cannot be free of it--they cannot be separated from sunlight without disorientation; the bee and sunlight/world co-make the bee's opportunity to find food. Modern humanity, however, has gradually advanced on freeing itself from connection with the physical world, and into the realm of abstract objectivity, which can only constrain our realm of experience. "It was this (modern human) posture that gradually seduced us to abandon joint movement as a way of life, and instead to dance to the rhythm of our readings in society...Inquiry in the modern human posture, though responsible for many advantages of our current way of life that we cannot afford to lose, does not make co-making evident."⁵⁶ This 'freeing' from our environment ultimately points towards disorientation; and although our making of places in the world will always reflect a certain connection, "it need not reflect the extreme loosening of being broken away from the world, inasmuch as our original posture speaks of bound-togetherness, should we bother to listen to it. To be loose in an order of co-making (between ourselves and the world) is not the same as to be free in an order of making."⁵⁷ To be free in this sense is to fully constitute and construct (determine) one's own world. Schumacher has faith in the capacity of the terms of posture, as one discourse among many, to displace the conventional reliance on the categories of the conscious mind mistakenly considered to transcend the body.

⁵⁶*Ibid.*, p. 12.

⁵⁷*Ibid.*, p. 31.

Schumacher defines this postural distinction within the dichotomy of the bodily-oriented 'standpoint' and the visually-oriented 'point of view.' The standpoint, or what I will refer to as 'natural seeing' (footnote) is loosely tied to the world, whereas the abstract viewpoint is attempting to break free of that connection. He argues that we have lost any sense of our own sensuality--our own

perceptual mechanisms that bring us in contact with the world--as we have furthered intellectualism.

At a standpoint (natural seeing) I have no sense of spatial ubiquity, of a place separate from time. I stand here, other things stand there, and we are in touch through the ground, along which we must move to close the distance between us. But at a point of view (abstract viewing) I have a sense of spatial ubiquity, of a place separate from time: other things are at a distance at once, through the air. I am, as it were, swept off my feet into the space of the world in view, no longer in touch with or through the ground; I have a sense, not of a distance to be moved through, but rather of distance separate from time.⁵⁸

⁵⁸*Ibid.*, p. 64.

The dichotomy is a function of two methods of description--one which is an order of movement of the space-time of natural seeing, and another which is read in the abstract space of the viewpoint. Essentially, the difference is that when we conceive of the world through 'natural seeing' time is a dependent variable, but in abstract viewing time can only be an independent variable--it is not always already a part of our discourse. We find a parallel in Merleau-Ponty's division between concrete and abstract movement, which represents the dichotomy of physiological versus psychic consciousness. "This distinction can survive," Merleau-Ponty argues, "only if there are several ways for consciousness to be consciousness."⁵⁹ Schumacher reveals the connection in space-time that the Hopi Indians in the southwestern United States have with their world. The Hopi language is incapable of expressing spatiality without a relationship to time; the element of time is not even theoretically separable from elements of space. So when they consider distance, it is inextricably tied to the movement of the body in space-time. "The Hopi are 'frankly pragmatic': distance is a matter of human effort, referring us to the action required to span it."⁶⁰ As Merleau-Ponty noted, distance, or depth perception in natural seeing, is a function of movement and experience. Schumacher indicates that many of our own words that are today spatially oriented developed from a dynamic language base, much the way the Hopi language is structured. Schumacher, like Johnson, is bringing the

⁵⁹*Merleau-Ponty*, p. 111, 122.

⁶⁰*Schumacher, The Human Posture: The Nature of Inquiry*, p. 65.

body back into the mind, but from a different intentionality. Whereas Johnson revealed structures of language as being fundamentally embodied, Schumacher notes their roots in space-time. Although the abstract, objective viewpoint is part of our essence (as a function of human mental capability), the cognitive mapping that it accomplishes cannot completely account for our physical and sensual interaction with those things that surround us, as natural seeing more accurately can.

A conception of our world constituted through movement pulls the mind and body together and invokes sensuality back into our lives, specifically because movement is so fundamental to our existence. As we have seen, the observer in motion (not the motionless observer) comes closest to objectivity; in eliminating the necessity of conscious memory for successive order, Gibson articulated the dynamic nature of perception, and likened it to being everywhere at once and all-seeing. Thus our knowledge of an object comes from successive experience and our ability to comprehend in an order of movement. Movement allows us to 'read' and 'be read' in a number of ways; but without it we only become alienated as constructed and constrained human beings.

Schumacher believes that the structuring of modern society around abstract viewpoints has minimized the significance of sensuality in the Western world. Beginning with Descartes and Newton, "philosophy and eventually science were captivated by an outside-in orientation"⁶¹ to the body-world continuity, and its capacity to subvert relativity. To explore the system of reality from within the system is inherently limited; it is difficult to reveal that which one adheres to. Thus, the objectivity of abstract viewing grew more prominent. The outside-in analysis of the objective viewpoint led to efficiency in readability, and has thus produced a society organized around what Foucault describes as the 'panopticon' of the power structure. (power and knowl) The panopticon represents our experience of living within the viewpoints of the inspection

⁶¹*Schumacher, The Human Posture: The Nature of Inquiry, p. 84.*

principle; from the order of our children's classrooms to the watchful eye of security cameras, we have structured our lives in favor of visual surveillance and the constriction of movement. This has ultimately produced a society of people where the individuals assume the roles of both the inspector and the inspected. Quoting Foucault, Schumacher argues: "He who is subjected to a field of visibility, and who knows it, assumes responsibility for the constraints of power; he makes them play spontaneously upon himself; he inscribes in himself the power relation in which he simultaneously plays both roles; he becomes the principle of his own subjection."⁶² Thus we make a place in the world as if we were under inspection and thereby eliminate sensuality, limiting the possibilities of the way we live our lives. ⁶²*Ibid.*, p. 175.

It is through the sensuality of movement, Schumacher argues, that we can pull people together onto the common ground of a new objectivity. "I am urging a new sense of objectivity... grounded in an order of co-making with reality." Our method of entry into this new analysis takes two forms. The first is our shared way of orienting to the world in the sensuality of posture. The movement inherent in natural seeing brings the world into a dialogue with our bodies, and in that movement we discover certain invariants common to all of us. In space-time, views have no true objectivity, whereas the movement image approximates objectivity in the ability to 'see' from all points. Therefore, places should be seen as aspects of movements in the world.⁶³ Above and beyond the phenomenological and nostalgic 'place' making that pervades much of our architectural discourse, the introduction of time makes place an event more than a location--more a function of human activity--and thus more oriented to the *reception* of information through movement. The second key to this new form of objectivity builds on these commonalities of experience to build up circles of consensus through empirical comparison. Much as our senses overlap and confirm one another, we have the common ground to approach and ⁶³*Ibid.*, p. 146.

confirm objectivity in our co-making with other people. Rather than the abstract absolutes of objectivity based on viewpoints, we can direct ourselves using shared commonalities of embodiment to ground our analysis.



**EMBODIED MEANING IN
ARCHITECTURE**

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After 1980, when it was evident that architecture was devolving into visually-oriented, surface representations, a growing challenge to the inability of mainstream post modernism to cope with the problems of modernity emerged, originating from several camps. One such reaction could be found in the writings of Kenneth Frampton. Frampton is one of the few established architectural critics who has attempted to impact the direction of architecture through an operative, rather than simply a critical theory: a theory that attempts to affect, not just explain. In his 1983 essay "Towards a Critical Regionalism: Six Points for an Architecture of Resistance," Frampton lays out a polemical position based in the resistance to the continual envelopment of culture through the universal consumption of the media industry. He argues that a contemporary critical practice can only arise in the resolution of the instrumental reason of modern civilization and the collective psycho-social reality of cultural expression: "the fundamental strategy of Critical Regionalism is to mediate the impact of universal civilization with elements derived indirectly from the peculiarities of a particular place."¹

Frampton makes explicit the distinction between his position and that of other contemporary trends:

It is necessary...to distinguish between Critical Regionalism and simple-minded attempts to revive the hypothetical forms of a lost vernacular. In contradistinction to Critical Regionalism, the primary vehicle of Populism is the *communicative* or *instrumental* sign. Such a sign seeks to evoke not a critical perception of reality, but rather the sublimation of a desire for direct experience through the provision of information. Its tactical aim is to attain,

¹Frampton, Kenneth, "Towards a Critical Regionalism: Six Points for an Architecture of Resistance," in *The Anti-Aesthetic* (Seattle: Bay Press, 1983) p. 17, 20, 21.

²*Ibid.*, p. 21.

as economically as possible, a preconceived level of gratification in behavioristic terms.²

³*Frampton, Kenneth, "Intimations of Tactility: Excerpts from a Fragmentary Polemic," in Architecture and Body (New York: Columbia University and Rizzoli, 1988).*

Financial concerns have driven society towards a need for immediate aesthetic satisfaction through the aura of complete and self-contained instants. He warns against the misperceived aura of kitsch, and the ability of the mass media to mold architecture into a meaningless simulacra.³ On the other hand, an architecture of resistance necessitates a critical self-consciousness--an awareness of humanity's labile relationship between place and modern technology.

⁴*Heidegger, Martin, "Building Dwelling Thinking," in Basic Writings (New York: Harper and Row, 1977), p. 333.*

⁵*Frampton, Kenneth, "Towards a Critical Regionalism: Six Points for an Architecture of Resistance," p. 24.*

Modern tendencies since World War II have been to shift our urban emphasis to increasingly larger scales, expanding the separation between urban issues and human existence. And the domination of economic concerns has made it increasingly difficult to define a coherent urban form. Modernity has thus produced a continuum of placelessness. As part of an architecture resistant to such effects of modernity, Frampton proposes an approach to architecture that includes an emphasis on the tactile and experiential. Frampton turns to Heidegger for strategies to overcome the overwhelming absence of connection with the world. "...We shall now try to clarify the essence of these things that we call buildings by the following brief consideration. For one thing, what is the relation between location and space? For another, what is the relation between man and space?"⁴ Dwelling, Heidegger answers, is the fundamental character of the way we are here on earth. Heidegger goes on to state that "the condition of 'dwelling' and hence ultimately of 'being' can only take place in a domain that is clearly bounded."⁵ The "place-form," as Frampton describes this bounded domain, carries a burden within both institutional and physical form. The institutional place-form can be seen in concepts of community and social interaction. More significant to this study, however, is the physicality and tactility of

the bounded domain. The tactile's role in the constitution of a complex architectural environment has been overlooked in favor of vision: "the tactile resilience of the place-form and the capacity of the body to read the environment in terms other than those of sight alone suggest a potential strategy for resisting the domination of universal technology. It is symptomatic of the priority given to sight that we find it necessary to remind ourselves that the tactile is an important dimension on the perception of built form."⁶ Frampton describes an experience through Alvar Aalto's Sayynatsalo Town Hall (1952) where the architectural expression occurs as much through the tactile as the visual. The contrast between brick and wood underfoot, in terms of surface texture, friction, deflection and sound reverberation, evolves an understanding of the relationship between two consecutive spaces. By exploiting the tactile, the body is brought to terms with the reality of the presence of the place-form; the place-form must be felt as much as seen.

⁶*Ibid.*, p. 28.

...It is clear that the liberative importance of the tactile resides in the fact that it can only be decoded in terms of *experience* itself: it cannot be reduced to mere information, to representation or to the simple evocation of a simulacrum substituting for absent presences.

In this way, Critical Regionalism seeks to complement our normative visual experience by readdressing the tactile range of human perceptions. In so doing, it endeavors to balance the priority accorded to the image and to counter the western tendency to interpret the environment in exclusively perspective terms...the tactile opposes itself to the scenographic and the drawing of veils over the surface of reality. Its capacity to arouse the impulse of touch returns the architect to the poetics of construction, (Hence Frampton's emphasis on the tectonic) and to the erection of works in which the tectonic value of each component depends upon the density of its objecthood.⁷

⁷*Ibid.*, p. 28-29.

Frampton has suggested that we turn to the writing and research of Scott Gartner to reveal further options in the creation of a work of resistance. Gartner is one of the few, (if not the only) architects to make explicit derivations from the work of Mark

Johnson. Like Frampton, he believes that architectural theory has promoted vision and language to assume an over-privileged position; but unlike Frampton, Gartner's criticism is more contained within the profession itself. Theories that consider architecture as an entirely conceptual phenomenon have overlooked the fundamental tenet that it is through the experience of the body

...that the mind is brought into meaningful relationship with the world...Experience, as it relates to understanding, seems reduced to a matter of the visual registration of coded messages--a function of the eye which might as well rely on the printed page and dispense with the physical presence of architecture altogether. The body, if it figures into architectural theory at all, is often reduced to an aggregate of needs and constraints which are to be accommodated by methods of design grounded in behavioral and ergonomic analysis. Within this framework of thought, the body and its experience do not participate in the constitution or realization of architectural meaning.⁸

⁸Gartner, Scott, unpublished revision of "The Corporeal Imagination," in *Architecture of the In-Between: Proceedings of the 79th Annual Meeting of the Association of Collegiate Schools of Architecture* (Wash. D.C.: ACSA Press, 1990), p. 1-2.

He acknowledges that although signification and reference play a role in the construction of meaning, he believes that too much emphasis is given to the cognitive realm of architectural meaning. This, he argues, is a function of the Objectivist split of mind and body; Objectivism attempts to create a perspective outside the tangible world. "From this perspective, there is a permanent division between cognition and reason on the one side and perception, emotion and imagination on the other."⁹ Whereas Objectivist theories consider language as a "transparent analog of reality," Gartner and Johnson argue that linguistic understanding is just a special instance of general understanding.

⁹*Ibid.*, p. 3.

In opposition to those contemporary theories of architecture that equate meaning with 'signification', he proposes that the work of architecture should be considered as embodying meaning within itself first, before referencing other things. As Frampton has explained, architecture should not be considered as standing for an "absence", but thought of as a "presence." Gartner looks to the eighteenth century philosopher Giambattista

Vico to help explicate an architecture that embodies meaning within. In order to reveal the true relationship of body and mind, Vico felt it necessary to leave aside the abstract terms and relationships which form the basis of our own thought and consider the minds of the first people. Like Johnson, Vico identified metaphor as fundamental to the earliest human thought. "Because the minds of these first people were 'buried on the body' the basis of their metaphorical thought must have been the body and its interaction with the world, the only common medium which their imaginations could have flourished. Vico termed this fully embodied thought a 'corporeal imagination.'"¹⁰ Their minds were saturated with the senses. Through metaphorical projection, the 'corporeal imagination' was the only possible way of transferring mental structure from the realm of experience to the realm of ideas. Conventional perceptions of metaphor define it as a minor element of language. Quoting Johnson and George Lakoff, Gartner explains: "Metaphor is not merely a matter of language. It is a matter of conceptual structure. And conceptual structure is not merely a matter of the intellect--it involves all the natural dimensions of our sense experience: color, shape, texture, sound, etc. These dimensions structure not only mundane experience, but aesthetic experience as well."¹¹ The range of conceptual structures substantially consists of ontological and orientational metaphors. Ontological metaphors are composed of organizational systems derived from bodily experience. Our world consists of elements which can be distinguished, grouped, and qualified through our conceptual understanding of the relationship between inside and outside--a relationship which, in turn, produces bounded definitions. Orientational metaphors relate our physical being to the world through relationships such as up and down, front and back, right and left, and near and far. These metaphors structure and define physiological space, and each dimension, unlike the three dimensions of metric space, is

¹⁰*Ibid.*, p. 2-3.

¹¹*Ibid.*, p. 7-8.

¹²*Ibid.*, p. 5.

¹³Canter, David, *Psychology for Architects* (New York: John Wiley and Sons, 1974), p. 57.

¹⁴Gartner, p. 7.

loaded with a distinctive value. These metaphors are all part of our system of perceiving and understanding our environment “in terms of repeating and consistent patterns of events and relationships;”¹² or as Johnson describes them, schemata. A true understanding of architecture, therefore, depends on our ability to grasp the metaphorical dimension, the fundamental conceptual schemata of the work. We approach new buildings with an understanding of patterns acquired through previous experience. “..No matter how new the particular form produced chances are that people will have learned responses that will enable them to deal with the building, or that they will be able to develop them.”¹³ He claims that architecture is not simply a representation, but also a presentation of meaning--that it embodies meaning within itself. “This...is the most important sense in which buildings are meaningful; not as channels of communication for a set of intended meanings, nor as signs for ideas but as buildings. Our understanding of architecture is thus a way of experiencing the work itself as meaningful.”¹⁴

As Johnson has shown (see chapter one) the transfer of conceptual schemata from one domain of experience to another can only take place through an act of imagination. It is through imaginative metaphorical projections that our bodily experience is expanded into the cognitive and therefore cultural realm. But the fundamentally embodied nature of imagination constrains our understanding in certain ways. Therefore, metaphor is open to analysis (even though its meaning cannot be reduced to a literal set of propositions). Gartner’s theory for *architecture* is unique because of his insightful understanding of the complex and integrated relationship between meaning at a bodily and at a cognitive level: “Because our understanding of the world is constituted by an interlocking network of metaphorical projections of one domain of experience onto another, the meaning of a statement, an event or an object can be thought of as

a resonance with the world.”¹⁵ Rather than seeing a juxtaposition of the multiple layers of meaning, Gartner argues that the underlying conceptual structures permeate and relate the multiple layers of meaning. As an example, beyond the schema of ‘strength’ that might arise in our perception of a Doric column, we can transfer this schemata of ‘strength’ through metaphorical projection to the conception of a masculine body, thus relating the Doric column and the male figure. But note that this is not a direct association (where the interpretation of ‘masculine’ within the Doric might require prior knowledge of all of the orders), but a relation through a common schema underlying both.

¹⁵*Ibid.*, p. 6.

Although there is a certain accuracy in Gartner’s assessment of possible relationships between embodied and cognitive meanings, he does not respond to the discrepancy that arises between this analysis and the design process. Because he sees architecture itself is a medium of thought, Gartner argues that the designer can create through embodied thought, and that meaning arises and evolves in the process. “In that what architecture expresses is embodied in the work, and that what is understood is the meaningfulness of the work itself, we must acknowledge a certain inseparability of form from content.”¹⁶

¹⁶*Ibid.*, p. 10.

He is suggesting that architectural ideas are understood as architecture. “The primary expression of meaning in architecture should not, therefore, be thought of as a ‘translation’ of concepts into a material ‘language’ of form.”¹⁷ But such a position unwittingly places equal emphasis and value on all conceptual schemata, and provides no guidance as to how they should be utilized. The result is a ‘flattening’ or leveling of meaning, in that all schemata are treated as equivalencies. Further, the example used above of the schema of ‘strength’ would be equally meaningful wherever implemented, and regardless of its relationship to its context. To deny that architecture is a

¹⁷*Ibid.*, p. 2.

'translation of concepts' is to deny the design process itself: a process where an architect will have those values he wishes to emphasize, based on his conceptual understanding of the particular project. This analysis of meaning as a function of embodied reception is significant, but in its translation into a productive system it fails to address or engage methods of design implementation.

Another response to the inadequacies of post modernism's inability to grapple with the question of meaning in architecture can be found in the writings of Karsten Harries. Harries reacted against and responded to two primary discourses of the new architecture: the privileging of language and the resulting conventional historicism. He argues that the architect not only needs to question the privileging of the word, but more importantly resist the contemporary infusion of language as an opposition to space. The language problem is almost exclusively a twentieth century phenomenon that arose in the wake of the ascendance of the modernist aesthetic. Quoting Tafuri, Harries argues: "The emergence within architectural criticism, of the language problem, is a precise answer to the language crisis of modern architecture."¹⁸ The language crisis, Harries argues, is inseparable from the problems that arose out of the new technology. As an example, technology is a major factor in the diminishing importance of distance in modern society, and therefore of body. The postmodern pre-occupation has been with this language crisis, and with potential ways of overcoming it, through signs, conventions and myths: often arriving in the form of historicism. Historicist architecture, once divorced from its context, no longer speaks with conviction about an evolving ideal image of humanity; "...such a turn to the past seemed the cynical attempt of a rational age to cover up its own poverty."¹⁹ On the other hand, any sense of belonging, of continuum with the past

¹⁸Harries, Karsten, *The Voices of Space*, Center Vol. 4 (New York: Rizzoli, 1988), p. 37.

¹⁹Harries, Karsten, *Thoughts on a Non-Arbitrary Architecture*, *Perspecta: The Yale Architectural Journal* (Cambridge: MIT Press, 1983), p. 10.

has virtually disappeared, leaving modern man to fend for himself in the endless continuum of space-time. In the U.S., this absent grounding is perhaps no more evident than in the growing search for ethnic and cultural distinctions. How, Harries asks, can architecture cope with this absence?

Harries' philosophical approach to dealing with this language problem in architecture is grounded in an ethical position: an idealistic search for the non-arbitrary in the built environment. "Aesthetic sensibilities," he says, "carry ethical implications."²⁰ Modernism had freed man from the constraints of culture; but with such freedom came the arbitrary. "If there is one characteristic that links the diverse art movements of the modernist period, it is perhaps the hyper awareness of the fact that our sensibility could have been other wise."²¹ In reaction to the arbitrary and mute nature of modernism, mainstream post modernism had sought the non-arbitrary primarily through historical convention; but one of the difficulties of looking to the past "is that history does not speak with one, but with many voices."²² The work of Robert Venturi, Harries suggests, reflects the search for the lost voices of space, that is unfortunately misdirected. While modernist architecture had emphasized the articulation of space at the expense of communication, post modernism was allowing signs to dominate space. Harries quest for a non-arbitrary or binding reading of history turned to the essential: the arbitrary could only be subverted through a fundamental grounding of the relationship between man and the world. "I have linked the problem of arbitrariness to our greater freedom. To this one may object that freedom has here been grasped inadequately, because only negatively: true freedom is not freedom from constraint, but rather to be constrained only by what one really is, by one's essence. This suggests that the problem of arbitrariness might be met by returning to what is essential."²³ As Johnson identifies, our understanding is

²⁰*Ibid.*, p. 12.

²¹Hubbard, William, *Complicity and Conviction: Steps towards an Architecture of Convention* (Cambridge: MIT Press, 1980), p. 5.

²²Harries, "Thoughts on a Non-Arbitrary Architecture," p. 13.

²³*Ibid.*, p. 11.



²⁴*Ibid.*, p. 14.

fundamentally constrained by the range of possible image schemata that can be derived from patterns of experience. Ideals are imagined constructions, inevitably altered by cultural influence, but this does not mean that they are therefore arbitrary. Architecture should represent architecture, and re-present the essence of architecture; it should communicate what matters in architecture--a particular ideal. Like Gartner, Harries perceives architecture as having less to do with conscious and active interpretation. Both argue that architecture must speak as architecture before all else.

In an effort to help emphasize this ethical position, Harries draws correlations to political theory. As the authority of nature and reason began to supplant divine sanction as the legitimators of our lives in the 17th and 18th centuries, the philosophy of social relations began to take a new form. Likewise, architecture started down a similar path: "The primitive hut (or what the primitive hut represents) has played a part in architectural theory that parallels that of the social contract in political theory. Whether there ever was such a hut matters as little as whether there ever was such a contract."²⁴ We live our lives in a social environment where there is theoretically an essential way of relating to other people, and our political system seems to continually evolve towards what that essence is. In other words, the state of relations as defined by the political system is progressively better today than they were 300 years ago, or even twenty-five years ago. Harries contends that if nature and reason are to be given authority across our life experiences, then it should also more fully invade the arbitrariness of architecture. The search for the essential is a modern phenomenon because the arbitrary nature of architecture has only arisen within the context of modern man. "Region and history help determine what we find natural and inevitable. But the less an individual is bound to a particular place in space and time, the weaker that determination, and the greater the uncertainty about

what is to count as natural. This helps to explain why the problem of the arbitrariness of architecture is characteristically modern. We have greater difficulty constructing our ideal hut than Laugier did.”²⁵ The essential, Harries argues, should be revealed as nature and reason pervade architecture.

²⁵*Ibid.*, p. 15.

So, in opposition to conventional historicism, Harries appeals to a more “primordial understanding, less subject to the prejudices of time.”²⁶ In order to discover those aspects of architecture that are not subjected to time, he calls for an archaeology of conventional symbols to reveal the **natural symbols** buried beneath them. Like Schmarsow, Harries uses space, not form or language as the fundamental component of architecture. Any language of architecture must pre-suppose the language of space “and that language is a natural, not a conventional, language.”²⁷ Concurrent with Johnson and Gartner, the natural symbols of space compose a language addressed first to sense and imagination, as opposed to symbols that receive meaning in the conscious, standard reduction to the visual relation of subject to object. Harries adopts Heidegger’s notion of ‘being-in-the-world’ in order to challenge the confrontational nature of such reductions, where the relation of subject to object is conceived of from a fixed point in time and space. Our “being-in-the-world is misunderstood when we think of it ... in terms of a subject facing a mute world of objects, which the subject then has to (consciously) endow with meanings. The understanding of the world as a collection of meaningless facts rests on a distorting reduction of experience that must lose sight of the significance of things.”²⁸ He introduces the concept of a body matrix which places value on experience based on our human physical relationship with our surroundings. Such a matrix, like Gartner’s orientational metaphors, partially consists of bodily coordinates such as up/down, back/front, and left/right. The body is seen as a “paradigmatic ruler” that determines the

²⁶*Ibid.*, p. 15.

²⁷Harries, “*The Voices of Space*,” p. 35, 39.

²⁸Harries, “*Thoughts on a Non-Arbitrary Architecture*,” p. 17.

²⁹Harries, "The Voices of Space," p. 40.

"initial disclosure of space," in terms of the meaning in bodily experience.²⁹ Up carries a different meaning from down, based on our bodily relation, prior to any personal value or conscious association we might make with both. But these natural symbols and conventional symbols are intertwined. The conventional symbol builds upon the natural symbol of space. Where Gartner had emphasized the connection of mind and body in our understanding, Harries is more concerned with the stratification of meaning and the way in which meaning must have evolved. In his essay "Thoughts on a Non-Arbitrary Architecture" of 1983, he suggests that architectural academia could teach something akin to a vocabulary of abstract natural symbols, acknowledging however that it would not be sufficient substance for the creation of buildings. In a later essay, he is more cautious: "this attempt to found the language of space in the structure of being human in the world may suggest that by carefully studying this structure we should be able to develop something like a dictionary, perhaps even a grammar of the language of space. Here, however, it is important to keep in mind that the way we stand in the world is inevitably concrete and our own, colored by personal experiences, shaped by landscape and climate, shaped also by the community to which we belong and by its' history."³⁰ Any consideration of a vocabulary should make us wary and critical, because when we assume certain forms as formulas we can tend to overlook the realities of certain situations; but when thoughtfully considered as a base or substratum for the development of architecture, the vocabulary's potential effectiveness should become clear.

³⁰*Ibid.*, p. 47-48.

Underlying the Harries project is a profound historical perspective on the human condition. One angle of his ethical approach considers how this era might be perceived years from now. Such self-knowledge arising from a consideration of our development is, according to Foucault, a distinctly modern phenomenon. As I have noted elsewhere, Foucault has

demonstrated a stratification of knowledge, or ways of understanding the world. Likewise, Harries' perspective upon architecture reveals similar stratified structure where convention is built upon nature. In conceiving the relationship between man and environment, "meaning cannot...be made or invented, it can only be discovered, where such a discovery will also be a self-discovery." In our self-knowledge we have become too critical to accept simply repeating the past through historicist architecture. The choices we make communicate a particular ideal, and speaks for our generation in the great scheme of things, and will be looked upon years from now in an historical perspective as representative of our moment. Such an ethical philosophy is a continuation of a process that has been underway for some time. "We are still not done with the Enlightenment, (and) that goes for its architectural theory as well as for its political theory."³¹

³¹Harries, *Thoughts on a Non-Arbitrary Architecture*, p. 14, 16.

From his historical perspective, Harries has proposed a set of values that demonstrate the meaningfulness (for all of us) of the body in relation to space. But where Harries' theory of embodied architectural experience leaves off calling for a vocabulary, Thomas Thiis-Evensen's work begins. Building upon the work of Norberg-Schulz and Venturi, Thiis-Evensen describes his vocabulary as a system of *archetypes*, pre-existing formal entities that have specific impacts on those who engage them. Archetypes are the original models after which other elements in our built environment are patterned. "The present work," he says, "is limited to the question of how the archetype affects us psychologically."³² He wants to replace the generally subjective understandings architects have of form with a more accurate account of the embodied experience of the built environment. "In other words, behind the plurality of the many forms in history lies a simple set of archetypes which we can call the

³²Thiis-Evensen, Thomas. *Archetypes in Architecture* (New York: Norwegian University Press, 1987) p. 9.

³³*Ibid.*, p. 17.

grammar of architecture."³³ Like Harries, he is concentrating on the commonalities in architectural experience, but with very direct design applications. David Seamon writes:

This-Evensen argues that his work has direct design implications. He claims that, too often, an architect's aesthetic sense is subjective because he or she has not thoughtfully considered how architectural forms arise from and translate themselves back into shared, inescapable existential qualities...This-Evensen believes that understanding the archetypes and their 'expressive potentialities is essential when (a design) vision is to be turned into a realization.³⁴

³⁴Seamon, David, "Toward a Phenomenology of the Architectural Lifeworld," in *Back...to...Life: Proceedings of the 79th Annual Meeting of the Association of Collegiate Schools of Architecture (Wash. D.C.: ACSA Press, 1991)*, p. 5.

This vocabulary arises out of the necessity to resolve the dichotomy between what he perceives as the split between rationality and subjectivity. "These two extremes...represent a well known dilemma found in both architects' and users' relationship to architecture. On the one hand, we have a need for something stable and universal--a basis for prediction and recognition--and on the other, the need for personal and emotional recognition."³⁵ The archetypes become the stable and rational springboard for the acknowledgment and development of personal or cultural aspects of architecture. This-Evensen identifies private and social experiences as the two categories constituting our most conscious relationship to how our surroundings are experienced. He also suggests, however, that there is a third level of experience alongside the private and social: "This level, which is to a great extent independent of cultural determinants, can be termed the universal level. These shared experiences are difficult to put one's finger on because they belong to our spontaneous and unconscious reactions to architecture."³⁶ The commonalities in reception are directly connected to the direct and immediate experience of the form itself.

³⁵*This-Evensen*, p. 8.

³⁶*Ibid.*, p. 25.

Archetypes in Architecture is a search for the emotional content of architecture in a discussion of the common

psychological impacts of the physical environment. The concept of emotion as it has permeated architectural discourse tends to be vague and intangible, and rarely productive. The broad definition of emotion forces us to consider how do we are to discern our love for our family separately from an affected response to the built environment. This is an attempt to set a solid foundation and understanding for the production of an architecture that addresses emotional content. Psychologists tend to divide emotion into long term traits or dispositions, and short term states. Such short-term emotional content appears more relevant to Thiis-Evensen's study (and indeed to all architectural discourse), and can be divided into three categories: 1) *affective appraisal* --the interpretation and judgment of other things, 2) *mood*--describes a person's subjective state at any given moment, but is not a result of anything in particular, and 3) *emotional episode*--a reaction to some thing or event in particular, like getting angry at someone.³⁷ Thiis-Evensen's inquiry focuses on affective appraisal, or what Merleau-Ponty described as natural judgement, (though he does enter into the other two).

Thiis-Evensen argues that the universal expression of architecture is a phenomenon of the dynamic interaction between inside and outside space, and concentrates on these commonalities of experience through an investigation of the space-defining elements of wall, floor and roof. Like Frampton, he believes the design of spatial boundaries implicate the spatial form and identify a range of possible enclosure. The boundary provides shelter, which Thiis-Evensen perceives as the essence of architecture.

In other words, the elements of the roof, wall and floor all do the same thing--they balance the forces of inside and outside. The battle between these forces is an existential prerequisite for mankind. Without shelter, in the broadest sense, man cannot live upon this earth. In this context, these delimiting elements embody a fundamental meaning and thereby a fundamental expressive

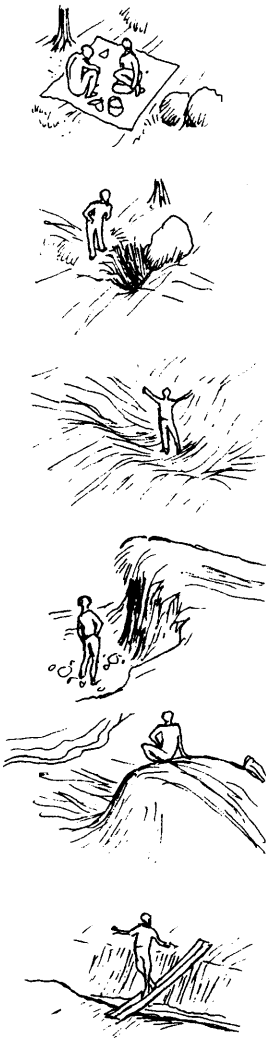
³⁷Russel, J. and Snodgrass, J. "Emotion and Environment" in Handbook of Environmental Psychology (New York: John Wiley and Sons, 1987).

³⁸*Thiis-Evensen, p. 19-21.*

potential, in that we evaluate them in relation to their principal role of protecting an interior space from an exterior space.³⁸

Thus physical shelter and the range of possible enclosure is considered as the driving force behind all works of architecture. The archetypes are a function of these spatially defining elements and the potential they have to elicit specific meanings, ultimately directing the experience of the relationship between inside and outside.

³⁹*Ibid., p. 23.*



Thiis-Evensen suggests that there are three qualitative concepts which can be used to explore the relative closure or openness of the space-defining forms of the wall floor and roof; and these are the experience of motion, weight and substance. Motion refers to the dynamic or inertial sense of the architectural element--whether it appears to expand, contract or rest in balance. For example, "As a motion, the roof rises or falls, the walls stand up or sink, the floor spreads out, climbs or descends."³⁹ Weight describes the heaviness of elements and how they relate to gravity. And substance refers to the material or textural sense--in other words, whether the architectural element is soft or hard, warm or cold, coarse or fine. These three expressions are, according to Thiis-Evensen, the basis of shared experience.

In this general discussion Thiis-Evensen classifies the spatially defining elements, describes characteristics or what he calls the 'themes' of each of the archetypes, and articulates a range of possibilities by identifying motifs used for the implementation of such themes. In the first major section he explores the three actions through which the floor can impact our experience: directing, delimiting and supporting. The floor can direct people from place to place, delimit a space from its context, and most significant, the floor can support by providing a firm footing. The supporting theme deals directly with the expressive potential of the vertical relationship between surface and mass,

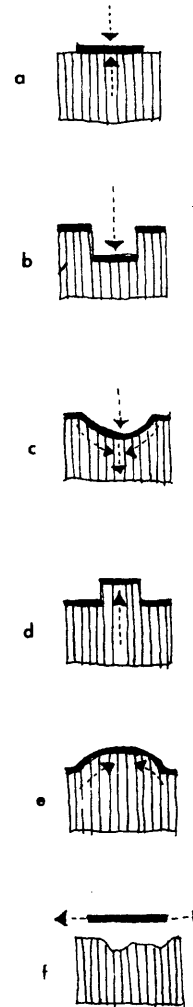
while the delimiting and directional themes are more concerned with horizontal issues of movement and the relationship between spaces. The characteristic of support is pervasive in any floor and therefore takes on the greatest significance in Thiis-Evensen's study, whereas the horizontal aspects are considered primarily in terms of their relationship to the forms of support.⁴⁰ He thus describes and qualifies six motifs of support: the attached floor, the detached floor, the sunken floor, the rising floor, the open floor and the directional floor.

⁴⁰*Ibid.*, p. 36, 39.

The purpose of the wall, according to Thiis-Evensen, is to delimit space and provide roof support, and can be explored through three themes: breadth, height and depth. "The depth indicates the relation between spaces in front of and behind the wall. The height indicates the relation to the spaces above and below, which are the ground and roof, and the breadth indicates the relationship to the spaces which meet the corners to the right and left."⁴¹ Contrary to the preceding statement, the height and breadth themes seem more concerned with visual readings of surfaces and the implied weight and motion that results from our perception of such surfaces, rather than any mediation between spaces. But the depth theme, surprisingly, is a valuable study on the relationship between wall forms and the spaces they define. These primary forms are investigated for the possible feelings or interpretations such an experience might elicit, and they are considered in terms of how the structural systems and material or textural applications could influence these forms. Finally, the mediating qualities between indoor and outdoor of windows and entries are considered.

⁴¹*Ibid.*, p. 117.

The themes of the roof are identified as the basic vocabulary of roof types: the dome, the barrel vault, the gable roof, the shed roof and the flat roof. Each of these basic roof types convey specific expressions which influence our experience of the space beneath. Besides the obvious shelter function, Thiis-



Evensen suggests that the roof mediates two other relationships: the relationship of the interior space to the sky and the relationship to context. The roof relationship with the sky can assume one of three possibilities: sinking, rising or neutral. The horizontal relation to the surroundings can be either exclusionary and centralizing (as with the dome), or directional and interactive (as in the gable). Key to this section, and relatively unexplored elsewhere in his text is a consideration of the relationship between one space-defining element and another; in this case the impact upon the roof forms by the wall articulations. The roof expression depends on the wall in three ways: the spatial form created by the walls, the height of the walls, and their form of support. In other words, this chapter begins to take account of how the wall impacts our understanding of the roof, and therefore of the entire built form.

One of Thiis-Evensen's key acknowledgments is the relationship between the psychological impact of the archetypes, and the cultural aspects of the architecture. Harries, referring to Erwin Panofsky, had argued that the aesthetic experience of architecture can and even must occur without reference to other things.⁴² Gartner had perhaps been more successful in tying together cultural and universal meanings by describing embodied experience as having a reverberation at all levels of meaning, through metaphorical projection. But Thiis-Evensen comes closer to developing a structure within the relationship between the universal, and the personal and social levels at least in terms of deployment strategies of archetypes for functional or programmatic requirements. His theory of archetypes suggests that we share certain qualities that bind our responses together to a certain degree. Thus, for instance, we generally walk swiftly in a corridor and slowly and ceremoniously in a broad space--and the designer's desired response at a particular place for one experience or the other can be implemented based on his

⁴²Harries, Karsten, "Representation and Re-Presentation in Architecture," *Via Vol. 9* (New York: University of Pennsylvania and Rizzoli, 1988), p. 14.

knowledge of the archetypes. But what is it that drives the designer's intentions? Not only is it possible that the universal expression can be influenced by culturally symbolic meanings and attitudes, those cultural intentions can provide the framework for the implementation of the archetype. From the designer's point of view, the universal expression

...is always there as the very reference for (and reinforcement of) the symbolic meanings. If we stand at the base of a steep stair, the (universal) expression is the 'resistance' itself which lies in the steepness. We know what lies ahead as we mount the stair, thus accepting its invitation. However, the sensation of resistance varies with the goal at the top. Ascending to the gallows and ascending to a victory stand are two completely different things. In the former instance, the resistance could be experienced as reluctance, in the latter as a challenge to be overcome. ...What the surroundings do and what we can do in them are not experienced completely differently from individual to individual rather they exist as different possibilities within the same 'offer.'

"In summary, we can state that the (universal) expression has a fundamental effect on our architectural experiences, not as a quality separate from the symbolic meaning, but as an integrated part thereof.⁴³

Thus, our senses should arouse feelings analogous to a building's use. The building program, in its broadest sense, in turn provides direction for the designer's implementation of these archetypes.

But although Thiiis-Evensen has acknowledged the integral relationship/interaction between cultural expressions and the archetypes from a theoretical position, his actual exploration of the archetypes is often unable to disentangle itself from cultural constraints. There is little question of Thiiis-Evensen's a priori acceptance, consciously or otherwise, of certain motifs that have obvious cultural biases. When investigating detailing, for instance, as in his thorough investigation of the Western classical column, from capital to fluting, his interpretation is direct and in no way abstracted.⁴⁴ To be explicit about the problematic of cultural characteristics invading any discussion of archetypes we should consider that any investigation of a universal archetype ought to



⁴³*Thiiis-Evensen, p. 31.*

⁴⁴*Ibid., p. 205-209.*

be applicable universally, i.e. anywhere on earth, or anywhere man resides. We should question the application of the classical column in most of the world, especially in our modern age. This problematic is also evident in his acknowledgment that the meaning of the archetypes is partially constituted through associations, which Johnson demonstrated tend to be conscious and therefore difficult to qualify. Because the archetype is in reality a human theoretical construction (simply because we can never experience it as such), he should instead be trying to develop the archetypes as conceptual entities, based on what we know about man's perceptual and mental capacities, rather than making direct interpretations of physical form. He illustrates the system of archetypes with examples from architectural history. But a confusion has arisen in the use of historical examples of archetypes, and certain examples have unfortunately been mistaken for the archetypes. By his own admission, the archetypes must be abstractions of reality, not the typical within reality. Yet *Archetypes in Architecture* at times finds itself slipping into an historical account of potential interpretations of meaning, rather than as a text of potential design implications.

This confusion partially stems from Thiis-Evensen's assumption of the pre-existence of the archetype, which by definition must always be tainted by cultural influence, rather than attempting to derive his abstract universal expressions through perceptual and psychological interpretations of the existing world; but other structural inconsistencies contribute to the theory's questionability. The lack of clarity is also enhanced by the ambiguity and variation on the themes of each type of archetype: the floor themes are the functional characteristics of supporting, delimiting and directing; the roof themes are the basic types--dome, vault, shed, etc.; and the wall themes distinguish the three dimensions of the physical form. When the explorations become more image schematic they are more successful; but two central

assumptions fundamentally constrain the entire work. First, Thiis-Evensen's decision to develop the archetypes based on the delimitation of space and mediation of inside and outside is, according to Johnson, only a partial description of the patterns and relationships that structure our understanding. Such a position assumes that our primary concern of contemporary existence is basic shelter, which, although self-preservation is ever present, is not the most basic concern of our everyday lives. Today, survival has taken on a new meaning, separate from 'basic shelter'. Although thousands of years ago such primitive survival instincts were most prominent, the need for survival was not our essence, but a programmatic necessity. This distinction should be clear: otherwise our essence would be consistent with all other animals. The essence we search for is that of the human experience, which pervades all our actions, including survival instincts. Playfulness, for example, is obviously part of our experience, but not directly tied to survival. Second, Thiis-Evensen's decision to divide the archetypes into the realms of floor, wall and roof is arbitrary and thus somewhat constraining. He argues that they are not an arbitrary selection for the basis of the archetypes because they are the elements that define space; but the division of the elements, not their selection, is in fact unnecessary and therefore arbitrary. His emphasis on the construction of elements that define space should come after an exploration of space itself; this system of organization inherently limits its own thinking. Thiis-Evensen should have seen the fallibility of this structure of the archetypes --the relationship of inside/outside in terms of the three separate elements of roof, wall and floor-- when he posed the question "How can the floor be open or closed?" and could only answer metaphorically. The suggestion is made that creativity is a function of how the designer relates these basic forms;⁴⁵ but if the initial division is arbitrary, then the division only serves to involve another variable to the

⁴⁵*Ibid.*, p. 17.

design equation. While the archetype potential still exists, it requires more work to create an archetypal experience through the combination of the three, rather than having a conceptual understanding of the space to be defined. For Thiis-Evensen, the division provides a way of creating multiple expressions within the same space. But there is an inherent danger of ambiguity in attempting to elicit conflicting expression through the pre-conscious understanding. This division of delimiting elements (which forces the author to emphasize the synchronic relationships between elements) and the constraints of the containment schemata combine to block any possible exploration of the archetypes diachronically, i.e. through pedestrian movement. (The study of the relationships between natural symbols will be the focus of the next chapter.)

In Thiis-Evensen's theory of archetypes, he derives his vocabulary through the interpretation of existing built form. As an alternative however, his vocabulary would have been more effective and would have made a closer approximation of a universal expression if it had revolved around concepts of image schemata rather than around existing physical elements --he would thus actually have derived the dimensions of physical form from the conceptual, which is the actual implementation process of design. It is, of course, necessary to analyze the relationship of already existing forms to human beings to develop an understanding. But in providing a vocabulary -- a source book -- logic would dictate a reversal of analysis methodology for future implementation of a design methodology. Such a conceptual starting point could find structure in Johnson's image schemata -- abstract, conceptual forms derived from physical relationships that the pre-conscious uses to structure perception.

Perhaps the most powerful of these schemata, although not directly discussed by Johnson, is the concept of *security*. Johnson

investigated physical relationships to develop his schemas, but because something like a 'sense of security' is value-laden and has personal emotional content, it was not considered from a pre-conscious embodied position. But not only do we structure understanding through image schemata, we place values on them as well. Whereas Harries and Thiis-Evensen talk about commonalities in the experience of space, personal emotional traits can obviously have an affect on how we respond, and these emotional characteristics can be considered from an embodied perspective. Rather than affective appraisal, which was the primary form of emotional content within Thiis-Evensen's study, this emotional content is based on what we bring to it. "If then we want to bring to light the birth of being for us, we must finally look at that area of our experience which clearly has significance and reality only for us, and that is our affective life."⁴⁶

⁴⁶*Merleau-Ponty, p. 154.*

The general concept of security defines a range of possible schemata, which has been identified and qualified in the work of Julie Messervy. Messervy's conceptions in landscape architecture are much closer to Johnson's conceptual schemata. She demonstrates how childhood experience structures and colors our understanding and appreciation of the environment, and argues that as adults we desire places of childhood memory: "I have built many gardens for clients who believe that they want a 'Japanese garden' for their home. But I know better; it is not an Oriental paradise that they desire, but a contemplative vision from their childhoods. They seek, in their busy and over-scheduled lives, a little place for dreaming in their own backyards. My job, as I've learned to define it over the years, is to wrest from their memories the images of beloved contemplative places and recreate them as three-dimensional form."⁴⁷ As Seamon has noted, "people become bodily and emotionally attached to their...world," largely in terms of fear, protection, exclusiveness and preservation.⁴⁸ Thus, as a function of childhood experience,

⁴⁷*Messervy, Julie Moir, Contemplative Gardens (Charlottesville, Virginia: Howell Press, 1990), p. 19.*

⁴⁸*Seamon, David, A Geography of the Lifeworld (New York: St. Martin's Press, 1979), p. 70, 131.*



security plays a fundamental role in constituting a meaningful world.

The image schemata in memory are based on and developed from childhood physical experience and Messervy believes we should acknowledge and embrace the need for personal and emotional recognition. She identifies the range of security through a set of 'landscape metaphors', each of which embody a physical relationship between man and the environment. These landscape images are the sea, the cave, the harbor, the promontory, the island, the mountain, and the sky.

The Sea: total immersion and security, perhaps arising out of the experience of the mother's womb.

The Cave: tight enclosure, secure, but with a visual access through window on the world; perhaps arising out of being "tightly swaddled just after birth," or the experience of childhood bedcovers.

The Harbor: an exploration of space from a protected position-- "protected on three sides but wide open to the fourth, the adult laps we may have sat in as children were very much like harbors to us."

The Promontory: experience of the extreme edge-- "After learning to crawl and then to walk, we became a kind of promontory in the landscape of our childhood by pushing our small bodies to the edge of our know world."

The Island: symbolizes an "away-ness" from and total control of the world: "As we grow up, we start to long for isolated retreats. We seek more independence from our care-givers, and we long to travel beyond the limits of our known world."

The Mountain: high, remote places of contemplative solitude: "a hideout from a world filled with heightened emotions and turbulent feelings."

The Sky: "The sky suggests the transformation from the physical self into pure spirit," a total freedom from confinement. "From early childhood on, many people dream of flying, of becoming lighter than air, defying gravity, floating above the earth."⁴⁹

⁴⁹Messervy, p. 20-21.

The landscape metaphors are image schemata that represent gradient levels of the concept of security. Although one might note a similarity in the concept of containment, as discussed by Johnson, conceptual schemata such as the Harbor or the Promontory could not have arisen in an investigation of containment. Nor would we find them in the work of Thiis-Evensen, where the limitations of the division of wall, floor and roof make it difficult to work with conceptual gestalts. Thiis-Evensen offers psychological interpretation of these natural symbols, but Messervy offers a way of pushing beyond commonalities and into the personal realms of emotional response. Her archetypes or landscape metaphors are targeted for specific individuals or types of people; thus she argues that part of the designer's goals is to learn about and understand the client. We must recognize that the potential meaning of any such space is always relative to the programmatic requirements of space.

Messervy's understanding of a child's physical experience of space as going through developmental stages --from the womb, to the security of a parents arms, and beyond-- parallels commonly held theories in psychology of environmental development in children. The Hart and Moore Theory, for example, argues that the frame of reference in childhood goes through several stages: from an egocentric reference system (where the body is the only frame of reference for interaction with the environment), to an allocentric reference system (early comprehensions of the independent structure of the world that is distinct from the individual's experience) and finally to a geocentric reference system (the capacity to construct absolute space independent of the self and specific objects). It is a process of decentering toward a coordinated system.

The child decenters from each of the partially coordinated fixed systems of reference of the previous stage. Thereafter, through processes of reciprocal assimilation among the reference systems

and reflective abstraction between them, he intercoordinates these structures and advances to a higher plane of thought...Rather than viewing egocentricity and allocentricity as developmentally successive reference systems, we may need to see them as reflecting different spatial skills for engaging the environment, with environmental conditions, affective states, and task demands determining in large measure which mode of performance is employed at a particular time.⁵⁰

⁵⁰Heft, H. and Wohlill, J. "Environmental Cognition in Children," in *Handbook of Environmental Psychology* (New York: John Wiley and Sons, 1987), p. 177, 183.

Objectivist theories assume a geocentric reference system because it is the most advanced, ignoring the fact that our experience is a function of the integrated systems. If architecture tends to be a connotative, subverted, pre-conscious experience, Messervy argues, should not part of its sensibility be to exploit these earlier and more primitive forms of environmental cognition? Likewise, her concept of security has direct connections to body-image theory out of psycho-analytic thought. Body-image theory's fundamental organizing principle is that "we unconsciously locate our bodies inside a three-dimensional boundary," akin to what might be referred to as 'personal space.' We adjust our body position based on psychological attitudes towards our bodies: "if there is a particular body zone which is physically weak or vulnerable (such as the back) the shape and texture of the boundary (of personal space) is modified in respect to that particular zone, often by establishing defensive psychological 'barriers.'"⁵¹

⁵¹Bloomer, K. and Moore, C., p. 38.

If we break down Messervy's work into its basic assumptions, it is clear that such a theory is based on an idea that memory is tied into perception in some fundamental way. This connection, however, is not direct or explicit, because she does not argue that the schema triggers a particular memory per se, but more of a feeling--a 'quasi-memory.' This would suggest a partial separation between memory of perception and memory of our total experience. Certain cognitive scientists in fact argue that pure perceptual experience can be stored in memory without significant processing. "We see no reason to exclude the

possibility of records (in memory) consisting of relatively unprocessed perceptual experience, or indeed records of the perceptual processing or of action sequences. In addition we include records of interpreted experience.”⁵² Thus, perception can be directly stored as memory, or perception can be interpreted and then stored. This points to what might be considered as part of a pre-consciousness--a space in the mind where mind and body are in unison--a perceptual memory. Merleau-Ponty cites examples where people who have lost a limb experience or sense a 'phantom limb' where their limb used to be. But when the nerves that would normally transfer information from limb to brain are severed, the phantom disappears. Such case studies imply an integral relationship between memory and embodied understanding. Body-image theory also implies a relationship between childhood memory and perception by focusing on the early years of perceptual and psychological development. Such examples only emphasize this connection of body and memory. Thus our mental constructs might consist of layers of memory, where psychological reflection is a second order system built on perceptual memory. Gibson confirms this idea of perceptual memory by challenging the conventional idea that space is perceived whereas time is remembered. The sequential dimension of perception and the continual re-structuring of memory are implicit and indispensable in the comprehension of the built environment.

Along with the concept of perceptual memory, the other unique aspect of Messervy's interpretation is its emotional content. Perceptual memory has the capability of accessing memory either in image and certainly in feeling. Not only do we have a pre-conscious understanding, but a pre-conscious perceptual memory, and the ability to make both conceptual and perceptual associations through this pre-conscious memory. In childhood experience a natural symbol is encoded in the mind as an image

⁵²Morton, and Berkerian, "Looking at Memory," in *Advances in Cognitive Science I* (Chichester: Ellis Horwood, 1986), p. 50.

schema. An attitude is formed about that space based on the total spectrum of possible influences: cultural, social, spatial, psychological, etc. When we re-experience such a spatial schema, even without the other components, our perceptual memory has the ability to re-fire the actual memory or the feeling, consciously or otherwise, of the original childhood experience. Emotional experiences have three components: behavioral, psychological and mental. And acknowledging that emotion has a physical component (adrenaline variations, as an example) pre-supposes the interconnection between the perceptual and emotional. Association with a past experience comes only when the new experience is understood in light of the past experience. This understanding is a function of the similarity between the past image schema and the new one. Both, in the mind's abstraction process, have been reduced to some comprehensible pattern. Merleau-Ponty argues that our emotional lives--our reality--is "shot through with intelligence."⁵³ Although the objective world has no room for elementary emotions, the value of emotion is ever present in all experiences; and that affectivity is always a part, however small, of our thought processes. Perception never functions in isolation. Whereas emotional content seems to make a designer's job more difficult because of the immediate variation it brings about from person to person, empirical evidence suggests otherwise; positive mood influences memory and enhances perceptual awareness; level of perception

⁵³Merleau-Ponty, p. 154.

Harries suggests another possible basis for the emotional content of spatial experience, acknowledging the intertwined relationship between time and space psychologically. He believes that out of our fears of vulnerability and mortality--distinctly human fears of our own self-awareness--comes an inter-relationship between physical shelter and psychological shelter. "As important as physical control is psychological control... If we can speak of architecture as a defense against the terror of space,

we must also recognize that from the very beginning it has provided defenses against the terror of time."⁵⁴ Harries, quoting Schopenhauer: "Man consciously draws every hour nearer his death; and at times this makes life precarious business even to the man who has not already recognized this character of constant annihilation in the whole of life itself. Mainly on this account, man has philosophies and religions.' Schopenhauer could have added art, and more especially, architecture. Shelter promises protection from time's terror. To feel sheltered is to have banished feelings of vulnerability and mortality."⁵⁵ Part of architecture's function is to help man deal with the fear of death by providing a sense of security. He suggests that comfort comes through the reliving of childhood experiences. Our childhood security, based on our relation to parents, places, and our youthful ignorance of reality constitute a 'motionless childhood' within memory.

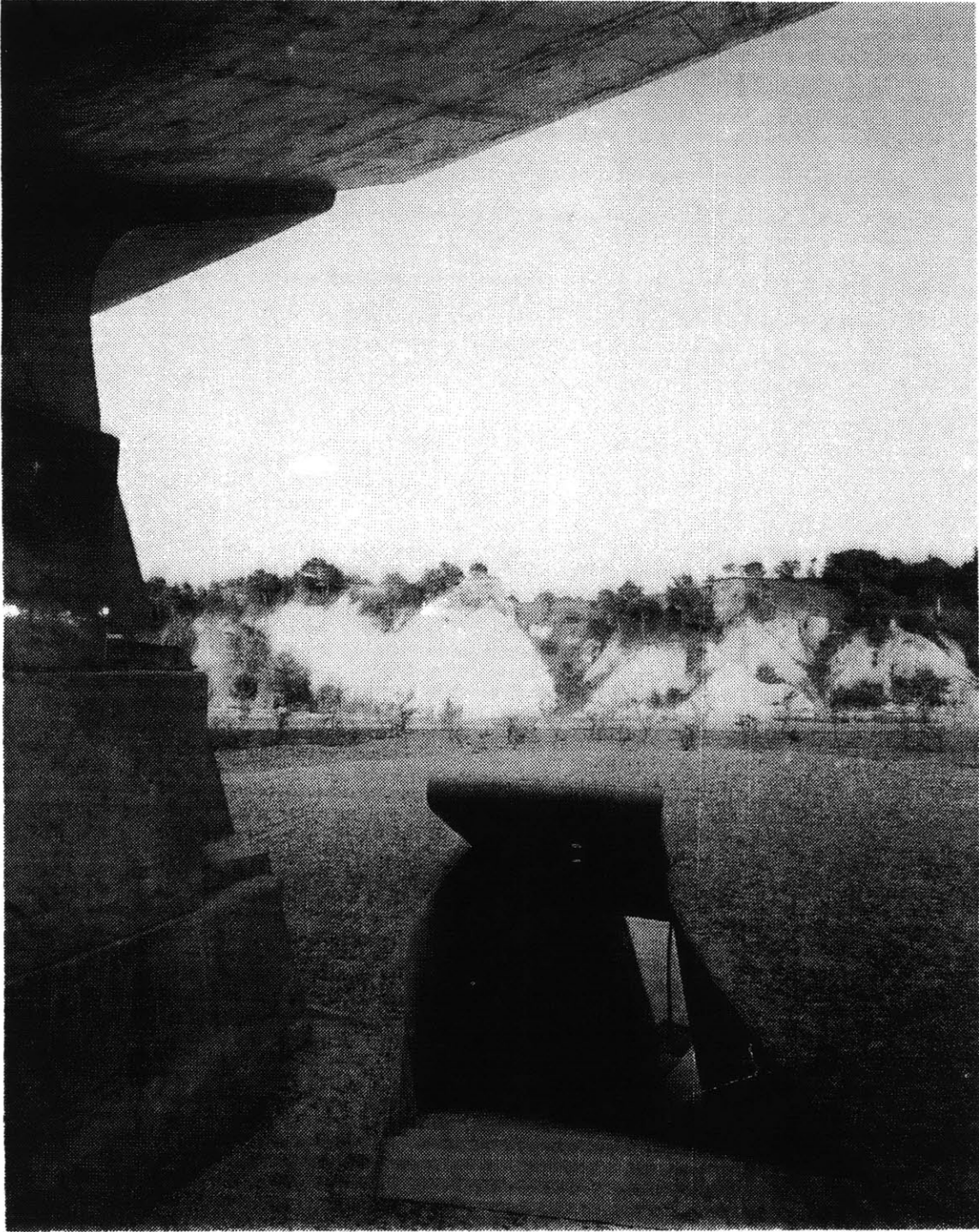
Whereas Thiis-Evensen's work attempts to seek out the commonalities of experience in emotional and psychological interpretation, Messervy is pointing out the individual differences and suggesting how they come about. More importantly for us, however, she is demonstrating a 'range of possibilities' which one could say are the range of possible image schemata from a psycho-analytic perspective of personal security: psychological shelter and its physical manifestations. Messervy pulls in the personal but in the process defines a *range* of universals. This conception of a range of possible experience runs parallel to Harries belief that freedom is to be constrained only by one's essence. Although the use of these individual landscape metaphors will be more effective when designing for one or a small group of people, they do have the potential to be used publicly, because of their inherent physical qualities; but their effectiveness will be much more varied without an understanding of the users, and ultimately can only be an approximation. But

⁵⁴Harries, Karsten, "Building and the Terror of Time," *Perspecta: The Yale Architectural Journal* (Cambridge: MIT Press, 1982), p. 54.

⁵⁵*Ibid.*, p. 60.

they can be used in the higher probability that they will extract the desired response. She argues that our childhood development passes all of us through these stages, thus giving us a fairly common access. However, Messervy also notes that particular places may have significance for an individual or group of individuals, which can only be known through extensive interaction with the client. The possibility is also there to pull out trends in a community, that might lean that society toward a specific appreciation of certain schema. Can a distinction be made, for instance, between those who grow up in the western United States and those who grow up in the east, or, say, in Europe? Taking from my own experience of living in Arizona and coming to the dense urban environment of Boston and the densely wooded areas of New England I realized the physical characteristic I missed more than anything was open space, or a sense of extension and view. Such distinctions begin to indicate the possibility of culturally or regionally-bound embodied meanings, which differ from culturally generated meanings. Embodiment is considered in light of generalized conceptions of a particular context. Where Harries and Norberg-Schulz nostalgic tendencies evidence themselves is where they both argue against the chaos of infinite space as a reasonable experience. The theoretical beauty of Messervy's work is that she identifies it as a possibility, but does not attempt to qualify it.





TIME, MOVEMENT AND MEANING

Since Einstein first challenged the security and stability of our objective, scientific understanding of the world with the introduction of his theory of relativity in 1919, there has been ongoing interest in how aesthetic reception takes place within the effects of the temporal dimension of experience: experience here conceived in the broadest sense of the term. Considerations of time and movement subverted the unified structures of meaning prominent in classical realist representations. The illusion of aesthetic unity was of primary concern of the early Frankfurt School, especially of the writer and theatrical producer Bertolt Brecht, and the critics that imported his ideas into film theory. In his critical dialogue with George Lukács on the aesthetics of the real, Brecht consistently pushed for an open interpretation of history, and, therefore, an open aesthetic practice; 'open' meaning a practice that did not attempt a false construction of closure in a social environment that distinctly denied such true unity. Brecht realized that Lukács's reductive range did not allow any response to changes within contemporary civilization. The only way to respond to an evolving world was through systems that could adapt to the continually evolving challenges of the modern world. Brecht shaped and formed an aesthetic theory for theatre that accommodated this necessity for an open and developing aesthetic practice based on the forms of construction, not the form of the total system. In the 1934 essay "Author as Producer," Walter Benjamin not only attempted to facilitate the reception of the work of his close friend Brecht, but he also attempted to translate Brecht's ideas for a critical transformative aesthetic practice into other artistic realms, especially literature.¹

¹Benjamin, Walter, "The Author as Producer," in *The Essential Frankfurt School Reader* (New York: Continuum Publishers, 1980).

The essay was an attempt to elaborate on the possibility of an entirely new relationship between author, work and audience. Benjamin understood the distinct **production of thought** in the Brechtian 'Epic theatre' as being of significant value to an aesthetic practice implicated through the Marxist movement. Certainly with the fifty years that have passed since Brecht first began to develop his theory of Epic theatre, our empirical knowledge base has expanded our range to see beyond much of the early 20th century Marxist rhetoric, especially in terms of an artistic practice's political power/potential for any transformation of the capitalist mode of production. Brecht's impact on the theatre as an institution has been significant but it is certainly questionable whether his work or the work of others who have emulated his techniques have had any real political effect. With hindsight it is not difficult to see that Brecht and Benjamin were both overly optimistic regarding the political effect such works could have, and were wrong to think that there was something in the form itself which could deliver liberation. "But the fact that they were historically wrong does not mean that the new rhetoric made available cannot be used for different ends: they are not wrong theoretically, because it is at least arguable that it is possible to resist mass culture,"² or more specifically resist consumption and passivity.

²Wright, Elizabeth, *Post-Modern Brecht* (New York: Routledge, 1989), p. 87.

The German-born Brecht came to maturity during World War I and its aftermath. For the Germany of the Weimar period, it was an incredibly thought-provoking era, for two main reasons. Berlin's location between Paris and Moscow allowed access to developments on either side and the German people, having lost the war and in the grips of a devastating economic situation, were now more willing to question the world around them. The religious oppression he experienced coming from a Jewish family led Brecht to look eastward towards Marxism which transcended such impositions, and to the new artistic movements in the Soviet Union. Perhaps as influential in Germany of that time were the pre-war

French movements, especially Dadaism. Thus Brecht was developing his own ideas in the midst of extensive rethinking of the aesthetic realm. One of the most productive dialogues Brecht became involved in during the 1920's and 30's was with Lukács, a social critic who, like Brecht, looked to Marx, but unlike Brecht, was attempting to construct a closed realist aesthetic philosophy to accomplish his own goals. But Brecht rejected Lukács' realism as ineffective: the multiple perspectives that Lukács sought through his realist model in no way denied the absorption of the spectator into the work. This, according to Brecht, promoted a passive society, in as much as the reproduction of reality says almost nothing about that reality. Lukács was taking his model out of the traditional 19th century form of the realist novel, which, in Brecht's mind, was descriptive rather than explanatory. Lukács was directly critical of Brecht's work because he feared fragmentation and artificiality in the modern world that would inevitably make it impossible to achieve a "wholesome existence." Thus Lukács was reductive when it came to the range of revolutionary work; his doctrine of literary realism denied all other potential forms. Brecht thus questioned the Marxist base of Lukács' model: the structure had been created from a previous period in history, but the social reality of consumption had radically evolved since that time, and the realist model in no substantial way accounted for this. Thus Lukács, while describing the so-called modern writers as "formalists" was in fact falling into a formalist mode by usurping literary tradition without regard for new and changing historical and social reality. "It is precisely the open nature of history which makes it Utopian or illusory to call for an alternative art which is closed: in fact, this closure can only be on the terms laid down by the dominant ideology ...which must represent history as permanently and perpetually over."³ For Brecht, the Marxist should not attempt to construct a closed world, but should respond to change within contemporary civilization.

³Wollen, Peter, "Manet: Modernism and the Avant-Garde," *Screen* Vol. 21 No. 2 (London: *The Journal of the Society for Education in Film and Television*, 1980), p. 17-18.

In opposition to Lukacs' limited range, Brecht saw the need to substitute the contemplative or passive bourgeois art form with an active, participatory art, in order to subvert the artistic production's continual consumption. It was his belief that a lack of unity for the object would lead to a lack of unity for the subject, creating the disruption necessary for revolution to occur. His emphasis in this evolving theory was on form, but in response to Lukács' exclusivity, he pressed to avoid rigid definition of form. What this interaction between these two men ultimately achieved was critical: Lukács' imposed limitations led Brecht to **a search for formal techniques rather than a formal totality**. Through formal techniques Brecht emphasized the aesthetic form's capacity to evolve with the ever-changing contemporary scene, and therefore be a reflection of our expanding knowledge. Brecht's conception of techniques was a significant breakthrough in his development of an aesthetic for the stage, and it evolved into Epic theatre, which brought together the advanced formal tendencies and the concern for political content.⁴

⁴*For further information regarding the Brecht/Lukacs debate, see Bertolt Brecht, "Against Georg Lukacs," in the New Left Review (No. 84, March/April 1974), George Lukacs, History and Class Consciousness, and Aesthetics and Politics.*

Brecht perceived man as a fully malleable being, and was primarily concerned with developing theories of reception in the theatre, in an attempt to bring about a social transformation from the conditions of his moment. He saw his drama as an 'experiment' or 'laboratory' that brings to consciousness the presence of the theatre so that the audience does not become submerged within the work. It was more important to tell the spectator he is in a theatre than to try and imitate reality. By juxtaposing backstage activity with the narrative dialogue of the plot, the fictionality of the theatrical production was brought to light. The aesthetic image, if the theatre was to be truly productive, had to break the auratic image: aura being based on a tradition of unique, complete and unified entities. Epic theatre became, in his attempt to manipulate the spectator, a political narrative that was not about developing action, but **representing conditions through multiple systems**; more significantly, however, Epic theatre does not "reproduce (these) conditions, but rather,

reveals them." It was therefore Brecht's tendency toward abstraction or to schematize reality to make these conditions clear. The goal was to "stir the viewer into assuming an active and critical attitude 'vis a vis' the work of art, in opposition to the traditional work which promotes passivity by tending to absorb the viewer within its parameters"⁵ When given the opportunity, the masses were much more capable of reason than typical bourgeois gave them credit for, and it was upon this rationality that Brecht was counting on --that reason was meant to triumph over emotion. By denying the receiver's emotional absorption into the tragic text, the spectator would be imparted by these techniques to rationally and critically consider the content of the work. Thus, through this dialectical relationship between work and receiver, co-authorship begins to take place as the receiver puts together the fragmented system to discover the significance in his own mind. The aesthetic practice should contribute to a production of meaning and knowledge that reinforces an emphasis on a thinking subject. In contemporary civilization, the unthinking subject is the greatest danger of all. This was a participatory self-education leading to an alienation from the conditions of existence, rather than an identification with a "tragic hero." Brecht believed that this would lead to the destruction of the unified totality of the aesthetic aura. And by breaking the auratic image, Brecht was encouraging rational, independent judgement from the viewer regarding the content, not simply the artistic form, as was the typical bourgeois response. The spectator is no longer able to submit to an uncritical response to the theatre.

His theatre aims to show that between the outward objectification of the subject and its inner experience there is a split, which will become critical in the capitalist world. The subject is encouraged to think of its individuality as independent of capitalist relations, and is therefore unable to see its own objectivity. Both objects and subjects are represented as given and it is this which leads to reification.⁶

⁵Wolin, Richard, Walter Benjamin: An Aesthetic of Redemption (New York: Columbia University Press, 1982), p. 149.

⁶Wright, p. 88.

Brecht therefore saw himself as purporting and revealing a "true realism" where the masses discover the social conditions of their existence through the work; his approach held much more potential for emancipation than did Lukács' closed system.

⁷*Brecht's concept of 'estrangement' is not directly translatable; it has been translated as alienation, distanciation, but most closely approximates 'estrangement.'*

⁸*Brecht, Bertolt, Brecht on Theatre (New York: Hill and Wang, 1959), p. 144.*

⁹*MacCabe, Colin, "The Politics of Separation," Screen Vol. 16, No. 4 (London: The Society for Education in Film and Television, 1975), p. 48.*

¹⁰*Merleau-Ponty, p. 94. Although Merleau-Ponty acknowledges this mental operation, he does not believe this assessment is complete.*

Brecht's intent was thus to instill a feeling of alienation or estrangement in the spectator in the process of breaking down the auratic image in order to fight passive reception. Estrangement⁷ "consists in turning the object of which one is to be made aware to which one's attention is to be drawn, from something ordinary, familiar, immediately accessible, into something peculiar, striking and unexpected..."⁸ Rather than an 'integrated work of art'--where the integration means that the various elements are fused and in the totalization process disappear--he emphasized the separation of elements. "We want a text whose fissures and differences (in this separation) constantly demand an activity of articulation from the subject."⁹ We find Merleau-Ponty saying virtually the same thing regarding perceptual mechanisms fifteen years later: "Movement, expressing a relationship...demands a mental operation."¹⁰ Taking from Surrealist shock tactics, it was Brecht's intent to get at the receiver's consciousness through perception, rather than representations. In order to induce a critical distance and fight passivity, Brecht developed methods that revolved around several primary awareness techniques.

The first and most central of these techniques is 'interruption,' which challenges the audience and attempts to pull them out of their narcosis through the introduction of the radical, novel, or unexpected. Epic theatre continually attempts to alter the viewer's perception through the interruption of rhythmic patterns, a change in perspective, an unexpected phrase, or a shift in temperament or attitude. It was not unusual for Epic theatre to break into comedic song in the middle of a dramatic moment. Interruption, Brecht claimed, could pervade all aesthetic realms. The following is the poem "The Stone Fisherman" by Brecht:

The big fisherman has appeared again. He sits in his rotted boat and fishes from the time when the first lamps flare up early in the morning until the last one is put out in the evening.

The villagers sit on the gravel of the embankment and watch him, Grinning. He fishes for herring but he pulls up nothing but Stones.

They all laugh. The men slap their sides, the women hold on to their bellies, the children leap high into the air with laughter.

*When the big fisherman raises his torn net high and finds the stones in it, he does not hide them but reaches far out with his strong brown arm, seizes the stone, holds it high and shows it to the unlucky ones.*¹¹

The fisherman sets the scene as objective perception; but with two words--"unlucky ones"--the author has moved from a framework of description to a subjective perspective loaded with content and attitude. Interruption is the "freezing of a moment so that instead of looking at things we have to examine the relationships between them."¹² The positing of these relationships brings about a distancing and shock, a way of breaking the auratic identity of objects and ideas for an identity defined by differences--i.e. the relationships that define them. This concept is defined as the 'gest.'

The gest...is a set of relationships revealed by an interruption. But these relationships will only serve to astonish insofar as they have first been subsumed under an identity. In other words it is when the world of pleasure and belief is interrupted that we set up desire and knowledge but it is necessary to start there where there is an identity in order to achieve the separation.¹³

Brecht proposes that there is a radical aesthetic pleasure in the interruption of the illusion of self-contained identity.¹⁴

Intimately integrated into interruption is the concept of montage. Montage is a formal system that recognizes the autonomy of individual parts, the significance of the relationship between parts, and in its own fragmentation is key to the fragmentation of the subject. Brecht's Epic theatre could be likened to a filmstrip--a

¹¹*Brecht, Bertolt, Selected Poems (New York: Harcourt, Brace and Co., 1947), p. 145.*

¹²*MacCabe, p. 49.*

¹³*Ibid., p. 49-50.*

¹⁴*Brecht was attempting to subvert the capitalist mode of production; but capitalism has the ability to adapt itself to change at incredible speeds. Thus the novel and unique challenges to the system yesterday do not have the same impact today. They are consumed at some point and enter into pure aesthetic. Therefore, the Brechtian shock technique is not a constant, but is constantly evolving; it enters into a cycle constituted by the dichotomy between novelty and naturalization.*

formal system that could be cut into self-stable pieces, with a consistent background in content--the social conditions of man. Unlike Eisenstein's early filmic model of montage where the juxtaposition was only a temporal one, Brecht's montage exists in time and space. By having multiple activities going on on stage simultaneously a more immediate juxtaposition of ideas, and therefore of differences and interruptions would take place. Brecht had hoped that relationships of montage would result in the construction of meaning: "what is important is that in the separation of elements the spectator gets separated out of this unity and homogeneity--this passivity--in order to enter into an active appropriation of the scenes presented to him."¹⁵ And rather than have these separate scenes pulled together into a cohesive plot, Brecht emphasized the importance of the particular scene. As in his production of "Galileo," where historical significance of the play's lead character was already well documented, the suspense of Epic theatre belongs to the individual events, not necessarily to an outcome we may already be familiar with. One of Brecht's primary methods of implementing montage was through new technologies, ultimately leading to multi-media productions. Part of the agenda of modernity of the early 20th century was social advancement through the liberation of technological advancement. Such advances provided a way to challenge traditional conceptions of theatre; by introducing film into drama, for example, Brecht was able to create a certain novelty, and at the same time establish a certain relationship between the film and the action on stage. Brecht in essence wanted to exploit all possible methods of infusing understanding, even at different levels of mental processing. "In my view the great and complicated things that go on in the world cannot be adequately recognized by people who do not use every possible aid to understanding."¹⁶ With hindsight however, as Theodore Adorno has noted, modern technology seeks passivity through a totally

¹⁵*Ibid.*, p. 48.

¹⁶*Brecht, Brecht on Theatre*, p. 73.

manipulated environment and a controlled response, rather than providing an impetus for significant social change.

In his attempt to separate out the subject, Brecht denies any possible emotional identification or attachment to the work. He was less concerned with filling the spectator with emotions than alienating him from the conditions in which he lives. For the clarity necessary for a critical distance he rejects all empathy with the plot or the stirring fate of a tragic hero. Emotional association could only result in intellectual minimalization. In opposition to the immediate gratification of emotional identification that typifies the theatre, Brecht attempted to build a desire in the incompleteness of the separated state of Epic theatre. "Caught in the homogeneous state of consciousness...we will find desire and knowledge."¹⁷ In the dissociation of emotion, Brecht wanted to affirm what he saw as the subversive energy and anarchistic tendency of the basic human drives. Anticipation builds a desire that cannot be fulfilled in the theatre itself.

¹⁷*MacCabe, 49.*

Brecht's concept of techniques defines a powerful method of organizing and constructing a malleable and evolving aesthetic practice. His theatrical works are compositions of specific formal techniques that provide a certain flexibility in coping with a changing world. These techniques are often specific to theatre yet have their counterparts in other arts. A theory of construction, rather than a totalizing whole, is more conducive to projection and translation--historically and categorically--because any or all of these constituent parts may be imported, while the unified whole has certain internal structural formations that cannot be altered without weakening or breaking down the entire system. In shifting from representation of plot to perception of relationships Brecht in essence turns perception "into an object" open to scrutiny. "In the concept of technique, I have named that concept which makes literary products directly accessible to a social and therefore a materialist analysis."¹⁸ Or any other analysis for that matter: as Adorno has noted, Brecht's work would

¹⁸*Benjamin, "Author as Producer," p. 25.*

not have held the same power without its political saturation. Brecht's theory of interruption and co-authorship may evolve out of a political tendency to educate the masses, but they are effective and affective forms open and available to appropriation by all socio-political orientations.

Brecht's specific techniques are dynamic methods of forming relationships between elements, and between spectators and elements, which therefore demand the receiver's appropriation of space-time. The techniques of interruption and montage are flexible, sophisticated theoretical systems for invoking or accommodating temporal experience: in the theatre or in architecture. What become significant and meaningful are the critical differences that arise in the gest. Gestural techniques are fundamentally diachronic, in that our perception of relationships requires some sort of sequence. Likewise we find that desire, a product of the technique of emotional dissociation, also suggests a temporal character in its incompleteness; desire seeks gratification--and to seek is to move--and in movement as a function of desire there always exists an implicit imminence.

Jacques Derrida also favored the dynamic character of time and movement in his post-structuralist subversion of the textual narrative. His relativist assumption was a critical response to the static and illusory nature of structuralism. Western civilization tends to favor certainty, superiority, assuredness; it is a culture where the authority and security of the objective explanation of our world is given priority to the actual experience of that world. Structuralism is the twentieth century manifestation of this position. Structuralist thought seeks knowledge from an objective, ahistorical, impersonal and scientific perspective. Saussure's linguistic theory of semiotics helped to lay the foundation for structuralism. "Semiotics is the discipline which seeks to describe the underlying systems of distinctions and conventions that enable objects and activities to have

meaning. It stresses the role of symbolic systems on human experience and thus reorganizes our perception of the world from that of autonomous objects to systems of relations.”¹⁹ Saussure’s *Course of General Linguistics* was a synchronic project that generated methodological models, but not meaning; it suggested that the names we attach to things had little relevance. He proposed a two-step process to investigate language: the definitive step was to draw a defined synchronic enclosure around that to be investigated, and the second step was to look at the frozen moment to explain meaning in language. He argued against looking for the actual empirical use of discourse to understand its structure and discover its meaning, but rather, suggested we look to the system of signification. It was the uncontrollable and relativist status of empirical linguistics that turned Saussure to clamp down on possibilities. Structuralist thought permeated diverse intellectual activities and the search for knowledge focused on basic themes and timeless structures that were supposedly the foundation for our world. Claude Levi-Strauss likened these timeless structures to a type of fundamental grammar.

The post-structuralist project represents modern humanity’s attempt to reconcile the inadequacies of objectivity with reality. This philosophy is wary of the closed system of semiotic analysis and intends to destabilize and transform structuralism by introducing time and history, thus positioning and re-positioning structuralist thought in a space and time of dynamic activity. Post-structuralism challenges our capacity to discover first and final causes of meaning, and argues against traditional divisions of fields of knowledge. This position acknowledges the incongruency between objectivist forms of analysis and our experience of apprehending meaning; such forms of analysis arose primarily out of scientific discourse. Post-structuralism is a critique but not only so: it opens up a space to allow a new order to arise out of the failures of the current structure of knowledge, and yet is inclusive of much of what preceded it

¹⁹Koukoutsis, Valeria, *Residences Secondaires: How Eisenman Houses Fictive Structures of History* (Cambridge: MIT SMArchS Thesis, 1989) p. 72.

²⁰*Ibid.*, p. 70.

“The boundaries between structuralism and post-structuralism cannot be clearly defined. However, post-structuralism promotes interaction, plurality, and contradiction which produce new meanings (and) new relationships.”²⁰ Time and history have become the new consciousness.

²¹Martin, Louis,
“*Transpositions: On the Intellectual Origins of Tschumi’s Architectural Theory*,” *Assemblage Vol. 11* (Cambridge: MIT Press, 1990), p. 26.

A significant part of the post-structuralist project, like structuralism, has come from theories of language, primarily developed in the work of Roland Barthes and Jacques Derrida. A new field of thinking was put into play by these critiques on language called deconstruction. “Initially, deconstruction could be defined as a reading and a production (writing) that attempted to reveal the absence of a transcendental signified.”²¹ Deconstruction suggests that there can be no pure signified in language or elsewhere; language is in a process of motion where there will always be slippage in relation to context. After Barthes had declared the ‘death of the author’--the insignificance of authorship relative to the dispersal of meaning in the reading and interpretation of the receiver--theories of reception came to dominate aesthetic discourse. Although an author’s intent may be well grounded in the production process, its meaning can be eclipsed by that which the reader brings to it. Derrida introduces the concept of *différance* which allows for the contextual movement which is directed at subverting structuralist philosophy. As part of his notion of *différance*, Derrida includes deferral, which postpones any stable relationship between language and meaning; to defer meaning is to await the presence of someone to the text; meaning is not presented ready-made. Derrida argued against the structuralist conception of signification analysis and attempted to rewrite Saussure in order to destabilize it. He posits meaning within the dynamics of motion and time. For instance, if we look at a word in the middle of a sentence, we cannot really know its full meaning until the end of the sentence; likewise, if the sentence is in mid-paragraph, the meaning of the word is still implicated. We can see this extension continuing from paragraph to

chapter to book...and beyond. Derrida believes that its meaning can never be fully isolated. Thus words do not have their full meaning when we encounter them, although their room for movement becomes more and more restricted the further away from them we get. Every present is marked by a trace of the past and implicated for the future. Derrida argues that it is impossible to grasp all meaning at any moment; the diachronic character denies any totalization. This suggests that meaning is not only a product of content, but also comes from the methodology and structure of the text. The emphasis has here been shifted to the signifier and syntactical relationships; in other words it is more about the form meaning takes than it is an exploration of and attempt to define the semantic content.²² This change in focus is justified in part by linguistic studies which suggest that syntactic capacity, not semantics, is the basis of human cognitive skills and intelligence.²³

The other strain of Derrida's *différance* is directed at Heidegger's metaphysics--a philosophy of phenomenal presence, which suggested a certain possibility of the 'givenness' of meaning in the world. For Heidegger, presence is intertwined with 'being' where objects are inseparable from their universe. It is a form of thinking that posits a world of truth and aspires to discover the natural, as opposed to a world of appearances. That which transcends time is the ultimate of Heideggerian metaphysics, and has manifested itself in everything from religion through to classical thought. Deconstruction reveals and opposes the authority and oppressive power of metaphysical assumptions of philosophy and knowledge. Derrida argues that although a sign has a certain capacity to break from its context, "there is no experience of pure presence," rather there is only "chains of differential marks."²⁴ If there can be no experience of pure presence there cannot be any transcendental objective signified. Our perception of the world is not a function of presences but differences--which implies a relational cognitive structure rather than the binary systems that Levi-Strauss

²²Derrida, Jacques, "Signature Event Context," in *Margins of Philosophy* (Chicago: University of Chicago Press, 1982)

²³For more information on this subject see the work of Noam Chomsky.

²⁴Derrida, p. 318.

had argued structured our thought. Derrida argues that knowledge cannot be grasped without representation and he uses the term 'text' to define the representational condition--everything is a text and every text is undecidable in principle. The text is a form of communication already in movement, where the 'absence' of the addressor from the marks that have been abandoned is not a presence, but a representation; although an object may not be a representation in itself, in our apprehension and comprehension it must always be as such.

The theory of deconstruction results in destabilization and deferral; Derrida's critique relativises everything. But given this dispersal of meaning, how can aesthetic theory compensate to have any productive representational system whatsoever? In other words, as producers, how do we clamp down on signs, to make them accessible after removing the metaphysical authority? Norman Bryson²⁵ argues that Derrida's reading is valuable to a position of semiotics to reveal forces within the cultural system; deconstruction helps to consolidate positionality. But as a technique for interpretation it can only result in a continual undermining of meaning; it is an excellent preliminary stage--but a disastrous final reading. The deconstructional criticism of structuralism is a positive move, but we must realize that because of the limitations of our representations as only abstractions of reality, any analysis must be by definition, incomplete. Further, such theories as have been imported into the realm of architecture have not compensated for architecture's inherently less explicit character; and as we have seen from chapter one, such dispersal of meaning is more characteristic of perception.

²⁵Bryson, Norman. *Post-Structuralism, Post-Modernism and Visual Art (Seminar given at Harvard University, Fall 1991)*.

Nicole Pertuiset questions the idealism of, and inherent limitations to a consideration of architecture in terms of structuralist and post-structuralist linguistic theory. There are intrinsic

differences between language and architectural aesthetics, and such cross-categorical equivalencies have historically resulted in misunderstood projections, from the purely representational character of language to the relatively abstract realm of architecture. Venturi's seduction by denotative semantics is a perfect example. Pertuiset argues that this comparison of language and architecture produces theory non-cognizant of that which is distinct to architecture; textual representation makes no acknowledgement of perception's more significant role within the artistic realms, nor in the greater stability of the linguistic sign than the architectural sign. The intellectual emphasis overshadows and ultimately subverts body-responsive architecture. The concept of 'text' emphasizes conscious 'reading' rather than interactive experience: "...post-structuralist studies of architecture based on literary criticism have been mostly pre-occupied with the conception of architecture as a text, stripped away of any temporal, material or experiential qualities."²⁶ Although the concept of 'text' implies temporal aspects, it emphasizes more of a concern for cognitive interpretation, and less about how people actually form relationships to the environment. In other words, textual theory projections into architecture do not identify and qualify the discrepancy between how the architectural participant apprehends his text and how the reader of the linguistic text apprehends his. Such an oversight implies that both readings come from the same and therefore static point. Further, the 'reading' of the architectural text as an explicit, cognitive, aesthetic construct only contributes to architecture's inability to resist its own consumption by the media industry. Architecture has lent itself, Pertuiset says, to the signifier/signified dichotomy in response to the ideology of consumerism and advertising. Explicit representation in architecture is a manifestation of the power of the culture industry. To resist commodification, she argues, architecture must acknowledge and exploit that which is inherent to itself. "It is neither as concepts, nor as formal objects, but as the place of actual and lived experience that

²⁶Pertuiset, Nicole, "The Floating Eye," Journal of Architectural Education (New York: ACSA Press, 1990), p. 7. Obviously there are temporal qualities in 'text'. but here Pertuiset is referring to the temporality of bodily movement and experience, as opposed to the static nature of the body in 'reading.'

²⁷*Ibid.*, p. 9.

we will resist the subjection of architecture to our culture of equivalence, and that the realm of its autonomy may be defined."²⁷

Pertuiset advocates a re-emphasis on the experiential aspects of architecture, but from a position significantly displaced from typical phenomenological models. The dilemma underlying architectural discourse is twofold. "On one hand because of the capacity our eyes have to overcome the four-dimensionality of space and time to the extent that space itself can be read three-dimensionally at once as a perspectival 'picture' or 'sign' prior to any movement of bodies, we reduce architecture to a culture of surfaces. On the other hand, as if it were a question of choosing between two approaches, we focus on the experiential and seek to reintroduce aspects of body to oppose and resist the current pictorial depreciation of architecture."²⁸ Taking from the research of John Schumacher (see Chapter One), she insists not so much that we give too much importance to vision, but rather that we have limited its function. "Schumacher's research addresses the nature of the connections between the various things in the world in virtue of how we make places in the world with our bodies - human posture - which consequently offers valuable insights into the nature of our architectural experience."²⁹ As we have seen, Schumacher argues that our methods of inquiry are implicated by how we conceive of ourselves within the world, and that there are two fundamental ways in which we relate to each other and the environment: one in which we consider the world from an imaginary objective point and develop abstract, mutually accessible readings of the world--abstract viewing; and the other, 'natural seeing' which gives us a dynamic sense of the distance that separates us from events and places. Rather than from an abstract position, both Schumacher and Pertuiset agree that we must conceive of the world and indeed of architecture in terms of both time and space, and in terms of our own bodies: we are always embedded in an order of movement. If we look upon the world from an objective viewpoint, we distance our analysis from

²⁸Pertuiset, Nicole, "The So-Called Cinematic Promenade of La Villette," in *Back...to...Life: Proceedings of the 79th Annual Meeting of the Association of Collegiate Schools of Architecture (Wash. D.C.: ACSA Press, 1991)*, p. 70.

²⁹Pertuiset, "The Floating Eye," p. 7.

our existence. Images of abstract viewing have a tendency to transform events into fixed singular moments. We have become completely seduced by the possibility to read simultaneously all aspects of the world...,³⁰ and this has only perpetuated the mind/body split. This seduction is imminent in the wake of fears of relativism. Pertuiset argues that the form of our conception of the world inherently structures the way we think about space; for example, our ways of representing architecture in drawings denies co-authorship, or that the participant plays any part in the formation of meaning. Today, the abstract viewpoint of objectivism has become the convention of architectural discourse. "It is ironic that critics of modernism, including so-called 'post-modernists,' should have retained the posture of the viewpoint, but on the other hand, it seems inevitable since the objectivity of the 'world in view' offers us a reassuring positivism in the face of our relativistic culture."³¹

³⁰*Ibid.*, p. 8.

Pertuiset chastizes contemporary architects for dissociating the synchronic and diachronic aspects of the architectural phenomenon, despite recent scientific and philosophical speculations to the contrary. The idealized forms of historicism, for example, indicative of this division, and are a product of the inability to perceive and understand "the complex dialectical process of historical sedimentation by which these forms were ascertained."³²

³¹*Ibid.*, p. 10.

Pertuiset demonstrates that it is within movement that we can tie the synchronic and diachronic together for architecture, and argues that an emphasis on vision as a function of movement has the capacity to resist consumption. Movement, which can only be conceived of through the temporality of natural seeing, promotes those qualities which are relational, therefore intangible and difficult to commodify. A consideration of movement pre-supposes the time variable's place within the aesthetic equation. Given the privileged role movement plays in perceptual activity (see Gibson Chapter One) such a theory holds the capacity to bring architecture, time and perception together. As in architecture, Pertuiset notes that

³²*Ibid.*, p. 10.

³³Pertuiset, "The So-Called Cinematic Promenade of La Villette," p. 70.

³⁴Deleuze, Gilles, Cinema 1: The Movement-Image (London: Athlone Press, 1983), p. 7.

³⁵Pertuiset, "The So-Called Cinematic Image of La Villette," p. 72.

movement is inherent in the cinematic image. Thus, taking from Gilles Deleuze, Pertuiset proposes a filmic model for architecture, where the body, not the camera, is the privileged center. "I will attempt to locate aspects that precede the significant system of architecture while still pertaining to the image in the belief that architecture and cinema engage us in a radically different way than literary texts."³³ Though she notes that architecture and cinema are fundamentally different in that architecture is experienced by a mobile subject, while cinema allows an immobile subject to have the experience of movement, the author suggests that the primary aspects of image and movement substantially constitute and thus relate architecture and cinema. "The great directors of the cinema think with 'movement-images' and time-images' instead of concepts..."³⁴ In *Cinema 1: The Movement Image*, Deleuze identifies two types of movement that in effect correspond to Schumacher's distinction between postures. First he identifies 'immobile sections' of space, in which movement is reconstituted in the simple transitions of self-contained 'poses' or forms. Deleuze notes the illusionary nature of immobile sections as closed sets that can only exist in abstract time. The immobile section typifies Western conventions in art where all is given within the surface or form itself. The second movement he elaborates on is referred to as 'mobile sections' of movement which function in the reality of our relativistic world to produce qualitative change. The mobile section is real movement within a concrete duration. Thus cinematic movement has two aspects: that abstract time which relates the closed sets of individual frames of a film to create the illusion of continuity and those mobile section or actions which cross and relate the immobile sections (frames) to express the duration of the film. Space is divisible into instantaneous units, whereas movement is not: "Real movement will always elude us at a 'point of view' because it can never be simply present."³⁵ It is always in the process of presencing. In concept, the immobile section is a function of Schumacher's abstract viewing, whereas the mobile

sections relate to natural seeing. They are what Deleuze refers to as perception-image and movement-image, respectively. Modern film is considered as a continuity of movement, rather than a series of unique moments--in other words the *relations* between perspective-images are what are privileged, not the images themselves. Although cinema is a two-dimensional representation and therefore the movement-image to which Deleuze refers must be, by its very nature a form of abstract viewing, as a model of consciousness for architecture, it takes on another role. Time in the objective world of abstract viewing, must be an independent variable. But in architecture Pertuiset suggests the possibility of another image. Ultimately, in light of Schumacher's reconception of vision in terms of modern scientific relativity theories, she posits that architectural space can be designed to give rise to the time-space image where movement replaces space as the foundational element. The obvious difficulty here is the limitations to our own capacity to represent the four dimensionality of movement for analysis. But by treating movement as the primary material of architecture, design would begin to challenge the aura of the aesthetic whole in architecture. Part of Pertuiset's criticism of the abstract viewpoint as it often manifested itself in architecture was the attempt to establish complete and unified structures. The objective abstract viewpoint perpetuates the illusionism of the aesthetic whole; but because movement is fundamental to our existence, the architectural whole is neither given nor giveable. When we construct the unity of the whole, we constrict the possibility of real movement. According to Deleuze, the whole, if we can consider it as such, is the duration of time--our consciousness--and must remain open and changeable.

Bernard Tschumi makes explicit use of a cinematic model in his *Manhattan Transcripts*, and Pertuiset notes his use of cinema within the Promenade of Gardens at Tschumi's Parc de La Villette. Tschumi had previously introduced the concept of 'experienced space' that attempted to resolve the dichotomy of conceived space

³⁶See "Questions of Space: The Pyramid and the Labyrinth."

³⁷Tschumi, Bernard, *Manhattan Transcripts* (London: St. Martin's Press, 1981), p. 7.

³⁸*Ibid.*, p. 10. Sequences might be structured around 1) a rule of transformation, 2) modification of archetypes through movement patterns. or 3) superimpositions.

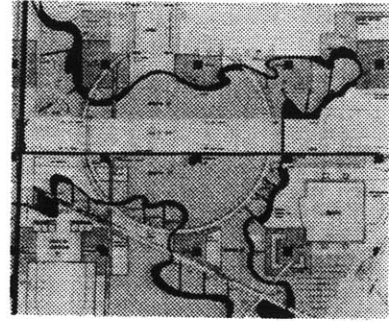
and perceived space.³⁶ Conceived space referred to our reasoning capacity, and our ability to mold architecture through ideas. Perceived space on the other hand referred to the physical sensation of the environment: a bodily responsiveness that had long been forgotten in contemporary architecture. The paradox here, he argues, is that architecture is always at once both conceived and perceived, and yet these are radically opposed to one another. Tschumi re-articulated the mind/body split in order to resolve it in 'experienced space'--which bridged sensory perception and reason. As a method of manipulating and applying 'experienced space' Tschumi introduced the filmic model in his *Manhattan Transcripts*. He suggests that value in the architectural experience only arises in the relationship between space, movement and event. Event is here conceived of as the spectacle of performance of some task, function or program. The *Transcripts* are meant to expose the complex relationship between "spaces and their use, between the set and the script..." Ultimately, he says, "the *Transcripts* try to offer a different reading of architecture in which space, movement and events are independent, yet stand in a new relation to one another, so that the conventional components of architecture are broken down and rebuilt along different axes."³⁷ The primary characteristic of his filmic model is sequence: "a composite succession of frames that confronts spaces, movements, events each with its own combinatory structure and inherent set of rules."³⁸ The techniques of film structure are applied to space. He suggests a composition of spaces in which meaning is as dependent on the relationship from shot to shot as it is on what is contained within the frame. At LaVillette, the frame by frame Cinematic Promenade is designed on the analogy of a filmstrip, where the privileged center--the participant--is put into motion between these frames. Each frame of the filmstrip--the gardens or views--represents a privileged moment: viewpoints that qualify, punctuate, differentiate and signify the unfolding of experience. Pertuiset notes that Tschumi borrowed the

discontinuities of filmic techniques such as frame, montage, cuts, and juxtaposition to organize his park, but concludes that his sequential structure is simply one of closed sets or poses related only in abstract time:

In the context of Deleuze's analysis of the cinematographic image, it is evident that in line with our culture of equivalence, Tschumi appropriated and aestheticized the technique of cinema, instead of assimilating its properties which otherwise would have led his design to a true emancipation of the 'viewpoint.' In its built form, the Park is experienced as dichotomized between, on the one hand, thematic units of experience each formalized as architectural objects or gardens, and on the other hand, the distance to be covered between each of these events, analogous to the abstract time that connects photograms. Although the vistas offered by the Cinematic Promenade are more appropriate for twentieth century taste...they are nevertheless predicated on the traditional dialectics of poses or viewpoints rather than on a modern dialect of movement.³⁹

In other words, the frames were idealized, not the contextual relationship between the frames. The frames were set up sequentially, but the relationships between frames is absent. "To realize movement in architecture would have required an understanding of it not in reference to the instrumentality of a promenade, a path or a ramp, but in reference to a quality of inhabitation that induces the visitor to 'see' in an order of movement that encompasses the world."⁴⁰ What Pertuiset insufficiently criticizes is Tschumi's inability to engage any other senses besides vision, which is surely a function of his cinematic model. "Thus, in spite of its updated imagery and the deconstructive postulations on which it is conceived, the park lends support to traditional and conservative values that include the most prevalent mechanism of consumption of contemporary culture: 'the viewpoint.'"⁴¹

Pertuiset is thus challenging the conventional positionality which leaves architecture as a function of objectified vision from an imaginary abstracted viewpoint, and offers instead a theory of form (not content) based on the interaction of vision and movement. She argues that the camera has supplanted the human eye and therefore



³⁹Pertuiset, "The Floating Eye," p. 11.

⁴⁰Pertuiset, "The So-Called Cinematic Promenade of La Villette," p. 71.

⁴¹Pertuiset, "The Floating Eye," p. 11.

⁴²Pertuiset, "The So-Called Cinematic Promenade of La Villette," p. 70.

⁴³Pertuiset, "The Floating Eye," p. 10.

⁴⁴*Ibid.*, p. 11.

human experience: "The camera as the key instrument that supplanted the human eye became part of the ideology that equated the real with the visible, that is to say with the readable...we are today often inclined to attribute to reality itself the quality of images."⁴² A by-product of abstract viewing, we lose sense of all of our perceptual senses--not just vision. But the rush to the tactile only articulates the misunderstood relationship between mind and body "Hence, we dichotomize architecture between on the one hand, tactile, haptic and tectonic qualities, and on the other hand, identifiable, typal, figural and symbolic aspects that are the substance of our readings. However, when we oppose the tactile to the visual or body to vision we corroborate the erroneous type of vision and we endorse the mind/body split."⁴³ Pertuiset resolves this dichotomy through Schumacher's terms of human 'posture', our stance taken in relation to the world. Posture redirects ourselves to more experiential aspects to complement our readings. "When architecture is conceived in the 'visual' world (of natural seeing), it remains in its corporeality implicitly and explicitly situated in the material world as well as in culture. Consequently no dichotomy arises between the autonomy of forms versus cultural determinism, an issue that has pre-occupied us since the eighteenth century."⁴⁴ Pertuiset realizes that modernity has not simply over-emphasized vision, but has rather misappropriated it; and by opposing the tactile, no progress is made in re-assessing the function of vision. Although essentially correct, the danger here is Pertuiset's willingness to treat meaning strictly as a function of vision. She accepts vision's current over-privileged status, that emerged from a world based on abstract 'viewpoints.' Thus she does not go far enough in challenging the viewpoint's inevitable results --one being an over-emphasis on vision in the world of aesthetics. She does not have a conception of experience as a function of the interaction and integration of all of the different senses, as Gibson says we should. Although we must acknowledge vision's privileged position, we must not undercut the potential of the

other senses. Not only is the filmic model an indication of this position, it perpetuates the discrepancy between vision and the other senses. Movement, for example, is never considered in terms of auditory, tactile or haptic sensations. The emphasis on language in architecture which she so sternly criticizes results from an emphasis on vision (in quantity and in substance) and her theory must be careful not to perpetuate this discrepancy.

The introduction of time and movement into the aesthetic equation have brought about an emphasis on differentiation. As Gibson noted, perceptual learning is very much a function of the greater noticing of critical differences. *The Good House: Contrast as a Design Tool*, by Jacobsen, Silverstein and Winslow, emphasizes differences in architecture through the articulation of contrasts. An aesthetic theory of contrast uses distinct and opposing elements in proximity, in order to intensify a work's effects. The authors believe that experience is sharpened and made tangible by contrast, and that the exploitation of oppositions can enrich and enliven phenomenal experience. Perceptual psychologists suggest that effective methods of raising and/or maintaining characteristic levels of stimulation would include the implementation of variations: in intensity as well as meaning.⁴⁵ In other words, by stressing contrasts, the authors believe designers can stimulate awareness and therefore perceptual comprehension of the physical environment. Their goal is to open us up to different ranges of experience.⁴⁶

The authors suggest that the theoretical concept of contrast is fundamentally structured, and therefore can be understood and applied. The authors develop design strategies grounded in six primary architectural contrasts: inside/outside, exposed/tempered, up/down, something/nothing, light/dark and order/mystery. We should note that some of these contrasts are binary oppositions, while

⁴⁵Fiske, D. and Maddi, S., Functions of Varied Experience (Homewood, Illinois: The Dorsey Press, 1961), p. 17.

⁴⁶Jacobson, M., Silverstein, M., and Winslow, B., The Good House: Contrast as a Design Tool (Newtown, Connecticut: Taunton Press, 1990).

⁴⁷The following is a partial list of linkages that they describe:

1. *temporal/sequential*
2. *movement/pedestrian motion*
3. *transitional/in-between space*
4. *separation/isolation*
5. *interpenetration/interlock*
6. *intermixed*
7. *fusion/juxtaposition*
8. *variation in scale*
9. *one shapes another (solid forms void)*
10. *element/something in field of nothing*
11. *gradient*
12. *border definition*
13. *filtered*
14. *tempered*
15. *rhythmic sequence*
16. *balance*

⁴⁸*Ibid.*, p. 68.

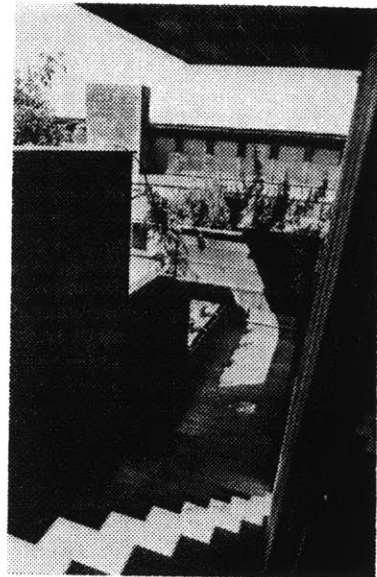
⁴⁹*Ibid.*, p. 72.

others define the extent of the gradient of a common element; the type of contrast is fundamental to the method of interrogating the relationship between them. Though a somewhat elementary text, *The Good House* explores and explains a rather remarkable/exceptional range of possible relationships between oppositions within the architectural contrasts described. Although the authors identify specific relationships for each contrast, most tend to be variations on a basic set of conceptual relationships or ways of mediating between oppositions. All represent ways of thinking about linkages, and therefore, successive order.⁴⁷ Not only do the authors present potential relationships between contrasting elements, they also offer strategies for accentuating these interactions. One way is to emphasize the polarity within the contrast through formal articulations. For instance, in order to emphasize the enclosure of interior space, the designer could 1) increase the concavity of the space, 2) define its corners and edges, 3) increase its opacity, and 4) decrease its size. A more complex method of creating more comprehensible contrasts is to consider them not as separate and distinct formal contrasts, but are capable of creating greater effect through their juxtaposition. Rather than conceiving of "the dimensions of environmental contrast...as independent variables, as if in/out could be manipulated independently from exposed/tempered or light/dark," we need to recognize that "environmental experience is not just a collection of separate, isolated impressions, but is organized instead into a larger, more unified structure."⁴⁸ They suggest that there is an inherent relationship, for example, between up and light, or down and dark. "The dimensions of contrast within some part of a building can either cooperate and reinforce each other, or they can fight each other."⁴⁹

Of the six contrast types that the authors identify, the dichotomy of order/mystery is unique in that it introduces and includes a subjective participant. Order assists in comprehension, and mystery is integral with curiosity and the unexpected. Whereas

we can conceive of light or dark or inside and outside as existing without someone to experience it (in abstract space), it is extremely difficult to consider 'mystery' under such pretenses. Mystery fundamentally implies a temporal and therefore a perceptual variable. In the other contrasts the value of time arises within the differential relationship between oppositions. Like Messervy's schemata of 'security,' the order/mystery contrast defines a range of possible schemata, but the polarity of either end can best be articulated through a juxtaposition with the other. "It is only within the framework of order in a house that occupants can pleurably experience the unexpected, and the mysterious...it is the unpredictable places that have the greatest potential to command attention and excite curiosity."⁵⁰ The authors point out that the experience of order and disorder, are key to expanding variety and opportunity, and arousing interest. Referring to order and mystery, the authors say "we need both." The author's example of the Havens House demonstrates this concept of mystery in application of contrasts. Designed by Harwell Hamilton Harris in 1939, the house puts the participant into a process of spatial and organizational comprehension that can only come about through exploration. The bi-level house is organized around a central courtyard with the entry on the upper level across a raised platform that passes through the courtyard, but denies visual access to it. An awareness of an "opening' is ever-present, but the actual view into the central courtyard is withheld until the last possible moment. Although ultimately movement and the relationships derived through other contrasts (for example the contrast from servant to served is low to high, and dark to light) are the true design organizing concepts, the courtyard is the primary physical organizational entity, upon which apprehension is necessary for comprehensibility. ".The design isn't so simple that it can be grasped at first glance. Rather, the order of the building gradually unfolds, becoming evident as one moves through the building from the public street to the most private spaces.

⁵⁰*Ibid.*, p. 60.



⁵¹*Ibid.*, p. 94.

The building has order, but it also has mystery...(and this) sense of mystery is furthered by postponing views of the main ordering elements."⁵¹ Such a work truly challenges, in the Brechtian sense, the auratic image. At no point can one fully grasp the house as an entity. Even the external view elicits a questioning of sorts. The house is one to be experienced, in the complete sense of the word.

⁵²*Ibid.*, p. 5.

Although *The Good House* identifies and explores a broad range of issues regarding differentiation through the concept of contrast, several key weaknesses must be pointed out. The authors argue that one of the underlying components to all contrasts is that the opposing elements must be mediated by 'physical linkages', that serve not to dull the distinction but to enliven it. The authors insist that the relationship between two contrasting physical elements must also take tangible form: "the connecting link between contrasting pairs is itself an architectural element..." As an example, they suggest that "an interior (should be) linked to its exterior by a covered porch that allows you to experience in and out simultaneously."⁵² When a porch defines the relationship between inside and outside, contrast is no longer the fundamental structure of the relationship; and the assumption that all contrasts must be connected through some intervening physical element not only emphasizes that element to the detriment of the contrasting elements, it also, in its absolute nature, denies other possibilities. I propose that the contrasts are more significant when we emphasize the theoretical physical relationship, which have the most value as pre-conscious relationships to elicit pre-conscious meaning. Such relationships demand a mental action by the participant.

⁵³*Ibid.*, p. 71.

The second underlying component the authors identify is that contrast should invade every varied dimension of perception. But here, however, the authors push the concept of contrast too far: "contrast theory demands that the bases of walls contrast somehow with the tops of walls."⁵³ It should be clear that contrast does not need to pervade every element, nor necessarily should it. Contrast

fundamentally implies relationships between elements, not within them. The authors' a priori conclusions defy the possibilities of the manipulation of experience through subtleties. And, in certain respects, the text remain synchronic, as if it was an objective overview' of architecture; instantaneous oppositions are inherent in the need to declare that all elements must be in contrast, in that we might perceive those contrasts in an abstract, immobile section of time. The focus should not have been on the contrast of elements, per se, but rather the contrast of temporal experience. And it is because of the underlying assumption that contrast must pervade all elements that the authors are unable to translate their contrast theory into concrete design strategies; the authors fail in this respect because they provide few methods of reasoning for the application or implementation of contrasts.

David Seamon addresses contrast as experience from a position remarkably similar to *The Good House's* conception of the order /mystery dichotomy. Jacobsen, Silverstein and Murray had included the contrast of permanence/change as part of the order/mystery opposition (even though change can be very regular). On a wider scope, Seamon suggests that such a split is the fundamental core of our entire being, not simply a minor contrast. "I suggest we think about places in the context of two reciprocal movements which can be observed among most living forms: like breathing in and out, most life forms need a *home* and *horizons of reach* outward from that home. The lived reciprocity of rest and movement, of territory and range, of security and adventure, of housekeeping and husbandry, of community building and social organization--these experiences may be universal among the inhabitants of planet Earth."⁵⁴ Seamon conceives our life experience as a function of the dialectic between movement and rest; rest acknowledges attachment to place and being comfortable within familiar surroundings, while movement demonstrates curiosity and exploratory habits. The vitality of life, he argues, arises out of the

⁵⁴Seamon, quoting Ann Buttimer, *A Geography of the Lifeworld*, p.131.

interaction of movement and rest: "each requires its opposite to be so." This dialectic might be seen as a 'meta-schema' of contrast for all of human experience.

Rest is associated with center, home and at-homeness. It points to a basic human need for spatial and environmental familiarity and order. Rest anchors the person's present in his or her past; it maintains experiential continuity. Security, privacy, quiet, passivity, contemplation and other similar qualities often have their context in rest...Movement, in contrast, has links with horizon, reach and unfamiliarity. It is associated with such active qualities as search, newness, exploration, alertness and exertion. A person, through movement extends his knowledge through distance, place and experience, he becomes familiar with spatial and experiential horizons that were undisclosed or obscure before. Movement helps the person to assimilate places and situations into his world of familiarity. In this sense, movement widens the sphere of at-homeness and dwelling.⁵⁵

⁵⁵*Seamon, A Geography of the Lifeworld, p. 132-133.*

Through movement and extension we seek out variation in stimuli for mental stimulation and activation. By our very nature as human beings we require both regularity and variety, order and change. Thus, Seamon's exploration typifies the search for an architecture that exists in time, but does not submit us to the terror of time and unending relativism.

CONCLUSION

Pertuiset in "The Floating Eye" suggests that "an architecture immanent to movement appears indeed more appropriate to our relativistic world than a nostalgia for transcendence."¹ Such a position evokes a response that is absolutely fundamental to this thesis--**what is it that makes movement and transcendence mutually exclusive?** Movement here refers to a personal, temporal kinesthetic experience, whereas transcendence suggests an excavation of elements of experience which are beyond time and place. Neither concept is constituted through characteristics which contradict the other. Pertuiset has misassociated the illusion of unity in the aesthetic whole with transcendence, and has dichotomized them from movement and relativism.

¹Pertuiset, "*The So-Called Cinematic Promenade of La Villette*," p. 12.

In this thesis I have attempted to lay the groundwork for resolving the difficult juxtaposition of the transcendental qualities of embodied meaning with issues of time and movement, in order to derive an architecture fundamentally grounded in understanding through the human body. It is my contention that all of this thesis's preceding propositions are significant parts of an architectural aesthetic that need to be recomposed in relation to one another in order to evolve into a viable, tangible and applicable aesthetic theory. They are not necessarily incomplete in themselves --I do argue that we must be allowed to break down the constituent parts of the total experience of architecture in order to facilitate their study-- rather, I suggest that these theorists have their greatest potency in relation to one another. The preceding sections unveiled possibilities for further development of embodied movement and meaning., Accordingly,

this thesis seeks to open a wider architectural discourse, which incorporates an embodied understanding of architecture.

This thesis is a continuation of a search for order that is a form of self-knowledge. As designers, we need to appropriate this self-knowledge, complementing our abstract analyses with an understanding through the commonalities of body and movement. Ultimately, as Harries notes, the arbitrariness our self-knowledge attempts to overcome is a function of ethics: " Problems of building and dwelling cannot finally be resolved by theory; theorizing can, at most, hope to call attention to possibilities and perhaps help to recall us to what matters. But without commitment, there is no escape from arbitrariness."²

² Harries, *"Thoughts on a Non-Arbitrary ARchitecture,"* p. 20.

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